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ORIGINAL DEPARTMENT.

LECTURE.

ALCOHOL IN INFANTILE THERAPEUTICS.

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Translated for the MED. AND SURG. REPORTER.

GENTLEMEN:—There exists, to-day, among many physicians, a certain degree of incertitude regarding the indications and contra-indications for the employment of alcohol in infantile therapeutics.

It is on this account that I propose to bring before you what is known concerning this form of medication, which you have frequently seen me employ.

I will first speak concerning alcohol itself, and then successively of its physiological effects and the indications for its employment in therapeutics. I do not intend to give you a complete history of alcohol; I wish immediately to take up the practical side of the subject.

Consult works specially devoted to the subject, and particularly the thesis of M. Jeffrey; you will be able to follow all the different phases of alcoholic medication; you will remark notably how, in opposition to the dogmatic school of Broussais, another, more in conformity with the great medical traditions, arose, under the direction of Louis, Laënnec, and Chomel.

This was before all a school of observation, which paid proper attention to the strength or weakness of the patient, and thence drew just inferences regarding the indications for treatment in diseases where theorists of the physiological school could see but the state of irritation under

which the system labored, and these observers recognized also that in adynamic diseases alcoholic stimulants could be given without fear of increasing combustion.

It was not then, properly speaking, a new system of medication, when Todd, in 1860, introduced alcohol as a general method of treatment for inflammations and febrile diseases of all kinds; however, the extension of this medication to every disease characterized by high fever was received with much distrust by most practitioners, and for myself I must say that I was rather more surprised than convinced. My doubts, however, were of short duration.

The following case seemed to me most decisive in favor of the utility of alcoholic medication.

In 1865 I had under my care an American, forty-five years of age, with intense bronchopneumonia, accompanied with very violent nervous and inflammatory reaction. I essayed all the anti-stimulants and all forms of revulsive medication; notwithstanding my zeal, the situation soon became grave; extreme oppression induced by generalized congestion of the lungs supervened; there was abundant catarrhal secretion and rapid and alarming loss of strength. The mucous secretions in the bronchial tubes, which the patient was too weak to expectorate, accumulated in the upper tubes, and gave rise to loud, tracheal râles, which could be heard at some distance.

I considered that alcoholic preparations were indicated, but did not dare at that period to employ them without the advice of M. Jaccoud, who was, as I was well aware, thoroughly cognizant of the English works on the subject.

He considered, after due examination, that the indications for the use of alcohol were formal and of the greatest urgency. It was then nine or ten o'clock in the morning, and brandy was immediately administered. As I was very anxious regarding the effects of this medication, so powerful and so much opposed to my primary treatment, I managed to visit the patient again about eleven o'clock, and found him decidedly better, half sitting up in bed, the face by no means so cyanosed, almost natural in color; he seemed, as it were, coming back to life. From this moment improvement was decided, and convalescence soon established.

Since then I have observed many children with capillary bronchitis, pneumonia and broncho-pneumonia, lose strength constantly, and become weaker when submitted to any form of lowering treatment. While on the other hand, when alcoholic substances were administered in large doses, the amelioration was so rapid in the great majority of cases, that the utility of this form of medication seemed to me peremptorily demonstrated.

I have already, in another lecture, considered the action of alcohol at a physiological point of view, and I will to-day pass to the consideration of this powerful medicament as regards its employment in therapeutics.

The physiological data which we possess will be frequently utilized; but they are not as yet so completely established as to control entirely the use of this agent.

As things are at present, clinical observation has by far the greatest importance in the treatment of diseases; we can regard physiology but as a guide and often an unfaithful one.

From all that I have already said to you, regarding the effects of alcohol on the human economy, we can deduce the following conclusion: 1. Alcohol acts as a stimulant of the circulation and of the respiratory and cerebral functions; 2. As an aliment; 3. As an antipyretic; but as regards this last, I have a few remarks to make. We have seen that, even in small doses, alcohol lowers appreciably the general temperature of the body. Notwithstanding this, if alcohol be administered to a patient in a state of collapse and algidity after long exposure to intense cold, it will be found that under the influence of this treatment, the temperature rises gradually to the normal standard. Are the physiological data then wrong in this instance? No, the fact is but apparently paradoxical, as I am about to show you. What induces algidity under these circumstances? it is a sort of prostration of the vital

functions; circulation, respiration, and nutrition are but languidly performed; there is prostration of that function of the nervous system which regulates animal heat; the organism is abandoned, without any defence against external causes of refrigeration.

Alcohol being administered in the doses which we have indicated as rendering it an energetic stimulant of the circulation, respiration and innervation, blood soon arrives in increased quantities in the various tissues, hematosis is more perfect, the sources of calorification renew their activity and normal conditions again hold sway.

You see, then, that in this instance, the clinical facts, far from being in opposition to the physiological data, are in entire conformity with the results of experimental research. Alcohol may be applied locally; but regarding its employment in topical medication I will say but a few words, as there is nothing special regarding such use of the substance in infancy. Alcohol is used in frictions over joints after sprains; on limbs in an anaesthetic state or when numbed; also over the entire body as a sort of massage, as a stimulant during convalescence from wasting diseases and in chlorosis.

Alcohol is also used as a dressing for wounds and ulcers; it is injected into cysts and cold abscesses.

Its antiseptic properties render it of great service in gangrenous affections, in ulcero-membranous stomatitis, and in diphtheria. For topical application you may use diluted alcohol, wine or aromatic wine (Fr. Codex).

But what we shall especially consider is the internal employment of alcohol, and in order to arrive at a good understanding regarding this form of medication, we will pass successively in review the various affections common among children.

But first I wish to speak of certain little known applications of alcoholic medication in the newly-born infant. A child is born in a state of excessive debility; it has not the strength to live; either it has not arrived at full term, or labor has been long and difficult, so that the child comes into the world apparently dead; by artificial respiration signs of life are evoked, but the infant remains so feeble that it is incapable of sucking, and the absence of all nutrition will soon overcome the already precarious vitality. Do not, in such a case, hesitate; have recourse to alcoholic preparations; give to the feeble little mortal every quarter of an hour a teaspoonful of the following mixture, of course with proper precautions to avoid the entrance of the liquid into the

larynx: wine of Malaga, one-half ounce in half a glassful of lukewarm water; at the same time the child may be placed in a bath of wine. Under the influence of this treatment the child soon revives and becomes capable of suckling.

But there is one fault to be avoided in practice, when alcohol is recommended in such cases. This medication though very active and powerful, under the circumstances I have mentioned, must not be carried too far; and the parents should not be allowed to consider it as a means of bringing up children. It cannot replace suckling.

A few years since, I had in my practice a young woman, who was unable to suckle her child, on account of the malformation of the nipple, which was hard and very erectile, so that the infant, though vigorous, was unable to nurse sufficiently and became weak, diminished in weight, and was constantly somnolent.

I considered that a wet-nurse was imperatively required, but the family refused. Another physician was called and was of the same opinion, but at the same time ordered an alcoholic potion.

This seemed to revive the child so much, that a wet-nurse was not procured, the family thinking they could bring up the child with the aid of the potion. The child, however, soon again fell into a state approaching marasmus, and the intervention of a wet-nurse alone saved it from death.

Again, you will meet with cases, in children naturally feeble, who after a restless night become pale, without strength and unable to nurse. In such a case alcohol should be administered in the same manner we recommended for the newly-born infant.

It is in diseases of the organs of respiration that alcohol finds its most important indications, and it is of these maladies I will first speak.

Different groups may be established among them. Those in which alcohol should be employed preferably to every other form of medication are: capillary bronchitis, broncho-pneumonia, and pneumonia. I cannot recommend alcohol too highly in these diseases; leave aside all medicaments which act as depressants, such as aconite, kermes mineral, polygala, etc.; they act in opposition to the end desired; notwithstanding the idea we may form of the phlegmasia, give alcohol; it acts marvelously well, and is, with repeated blistering, the best treatment to institute.

The preparations most convenient to use are brandy, one-quarter or one-half ounce; or wine of Malaga, one ounce or more, in potion, per diem.

The medicament should be administered in small doses, frequently repeated, and much diluted, to avoid irritating the stomach.

Under the influence of this treatment the temperature falls, respiration becomes less frequent, the pulse slower, there is less tendency to delirium, and the skin is soon covered with abundant perspiration.

As regards other affections of the respiratory organs, such as laryngitis, bronchitis of the larger tubes, or in generalized bronchitis, alcohol is not proper in their treatment; is rather contra-indicated.

Emetics, nervines, like aconite and belladonna, revulsive applications; such are the means you should employ in these last cases.

Croup, however, requires special mention as regards treatment by alcohol, and I will return to it when speaking of diphtheria.

In chronic diseases of the respiratory organs, chronic bronchitis, bronchial adenopathy and chronic phthisis, alcohol may render service, but special precautions are necessary, as the treatment must be of long duration.

Administered under the form of wine with bark, or in any other preparation undiluted with water, it is apt to induce that form of dyspepsia, where anorexia is complicated with pyrosis, of which I have already made mention. Alcohol may act in such cases like sulphur, in stimulating for a short period the pulmonary mucous membrane and the lung. You should order it to be used from time to time and not constantly, and should never forget that it is but an accessory part of the treatment.

The real foundation of the treatment should be the mineral waters containing sulphur (Eaux Bonnes, Enghien, Mont-Doré), arsenic, phosphate of lime, revulsive applications over the chest, etc.

In emphysema and asthma, alcohol may also be useful. Here again it is a useful adjuvant to the treatment by iodide of potash, the sulphurous waters we have already mentioned, and the arsenical preparations.

Under certain circumstances, diseases of the digestive organs are favorably modified by alcoholic medication.

Among acute throat affections alcohol is used only in diphtheria, and in this disease it is of great benefit both internally and as a topical application. You are aware that in diphtheria I am absolutely opposed to cauterization; I seek only to modify the diseased surfaces with lemon juice, carbolized lotions, aromatic wine, or with alcoholized water (two tablespoonfuls in a glass

of water); this mixture may be used as a gargle or in spray.

In connection with this topical treatment, a general treatment may be put in operation, from which all depressants are carefully excluded, no mercury, no alkaline preparations, no opium, no bromide of potash, but instead of all these alcohol.

Every kind of wine may be used, with brandy diluted with water, at the same time with coffee, tea, etc.

The supreme indication is, in effect, to raise and sustain the vital forces.

I do not need to tell you that the application of blisters and the use of leeches are absolutely contra-indicated.

In certain forms of dyspepsia, particularly in the atonic dyspepsia met with in city children, alcohol gives excellent results. In such cases, Malaga wine with bark may be given before meals, properly diluted.

Without this precaution there is risk rather of aggravating the affection by this treatment. In fact, the administration of alcoholic preparations necessitates extreme attention on the part of the physicians, with a perfect examination of the patient; for I believe that there are cases where they are indicated, which much resemble others where they are formally contra-indicated.

If your patient presents a vague yellow tinge of the skin and sclerotica, if the liver is somewhat more voluminous than in the normal state, and if there exists constipation, you should abstain from administering alcohol, for if you do, polycholic will soon supervene, the dyspepsia become more inquieting, and you will have in effect aggravated the situation. In such cases the digestive troubles are consecutive to hepatic congestion, which is but augmented by alcoholic preparations.

The alkaline mineral waters are indicated, and the water of the spring St. Jean, at Vals, will certainly ameliorate this form of dyspepsia, of which the liver is the veritable point of origin. Under this treatment the sub-icteric tinge of the skin will gradually disappear, and at the same time the augmentation in volume of the liver will become less marked.

In the greater number of cases of diarrhoea, it will be sufficient to give subnitrate of bismuth, associated with diascordium or with laudanum, and there is no necessity to order alcohol; but if there is great prostration, or the diarrhoea be at all cholericiform, it will be imperatively required. You should commence to employ it as soon as you perceive any fall of temperature

about the cheeks, and it should be employed not only internally, but also externally, in warm frictions over the body.

In fact, with laudanum, alcohol should constitute the entire treatment. When the tendency to chilliness has disappeared, alcohol need no longer be given, and you can return to the ordinary treatment of enteritis. This furnishes me with the occasion to recall before you my experience regarding the administration of opium, and more particularly of laudanum, to young children. You all know how severely such medication has been judged, and the number of accidents attributed to it. I believe that a great deal depends on the mode of administration. Giving opium or laudanum in divided doses in the proper proportions, considering the age and strength of the child, you will never have to fear any accident. In a julep of one hundred and twenty grams put a drop of laudanum for a child under six months, one drop from six months to a year; two drops at two years; a teaspoonful of this mixture can be given every hour, until the diarrhoea becomes somewhat diminished, then the doses may be given less frequently; where the drug is given in such fractional doses you will never have any accidents from its use.

A fact which appeared very strange to physicians a few years since, was the employment of alcohol in the treatment of febrile diseases; and yet we well know, to-day, that it is often indicated, and even that it is more strongly indicated when the temperature is highest.

Many physicians formerly gave wine and water, or a cordial mixture, in certain general diseases; in typhoid fever, adynamic pneumonia, and in all states where collapse was present; but this medication had not arrived at the dignity of a method, and recourse was had to it but in exceptional cases, and often in extremis.

The only inconvenience attending the administration of alcohol in febrile disorders is that it diminishes urinary secretion, that it hinders, in a measure, organic depuration; to obviate this difficulty and to provide a supplementary outlet for the products of this depuration I am in the habit of giving mucilaginous drinks, laxatives and frequently repeated enemata.

In febrile disorders, alcohol calms the ataxic symptoms, diminishes adynamia, raises the vital forces, lowers the temperature notably and retards denutrition by diminishing combustion and the exhalation of carbonic acid.

You can then see of what importance this treatment is in such affections, but it must not be for-

gotten that it attacks but one part of the disease, and the other means used in such maladies must by no means be neglected. In the period of convalescence from grave fevers alcohol is of great benefit in exciting the various functions. With the eruptive fevers erysipelas may be classed, in which alcohol produces the same results and is equally indicated.

Finally, in the obstinate acute forms of intermittent fever and in its chronic forms, there is great advantage in giving alcoholic preparations, particularly wine and wine with bark.

In a general way it may be said that alcohol is indicated in all cases where there exists adynamia or tendency to collapse; it is thus indicated in the treatment of gangrene of the mouth or vulva, in chronic poisoning, and in all cachetic states.

You have perhaps noticed that I did not speak of acute articular rheumatism when considering febrile diseases, although alcohol has been much praised by some authors in that affection.

I do not advise it, and personally, I take care of my patients in rheumatism and make no pretension of giving curative treatment. If I prescribe salicylate of soda, at the dose of one to two or four grams to children from six to ten years, and tincture of belladonna or digitalis at the dose of 10 or 15 drops, or sulphate of quinine, 20 to 50 centigrams per diem, it is less with the object of cutting short the malady than of diminishing as much as possible, the pain, and to shorten the duration of the malady. By very large doses you may be able to obtain an entire cessation of the articular fluxion, but as soon as the medicament is laid aside, you will be surprised by a return of the disease more violent often than at the first attack.

I consider these therapeutic agents particularly the salicylate of soda, as excellent medicaments against acute articular rheumatism in children, but until their effects are better known I will hold to the line of treatment I have just indicated to you.

First I try to arrive at the susceptibility of the child for the medicament by giving one gram of the salicylate the first day, then I gradually increase the dose until certain phenomena of saturation supervene; at this point the pain is effaced and I do not further increase the dose, but maintain the tolerated dose as long as possible. As the rheumatic influence persists a month at least, it will be necessary to prepare for a prolonged course of treatment.

Aran died in attempting to break up and arrest the progress of a rheumatic attack by means

of repeated bleeding; the rheumatic pains were calmed and even disappeared, but were replaced by cerebral encephalopathy.

It is a striking example, among thousands that might be cited, of the dangers of all forms of abortive treatment.

You should not give alcohol in acute articular rheumatism, nor the preparations of opium in large doses, and for analogous reasons. I once lost one of my patients through yielding to his solicitations, and giving opium in increasing doses, as has been advised by Rousseau. It was a very excitable man, about thirty years of age, engaged very actively in business and a prey to many mental preoccupations.

Opium seemed indicated, on account of the pain, which was very acute, and for the mental excitement. After a few days the articular trouble suddenly disappeared and the patient succumbed to cerebral rheumatism.

Affections of the heart may, under certain circumstances follow the intervention of alcohol. Thus it should be given to children with malformations of the heart inducing cyanosis, in order to increase the strength of the cardiac muscle. It is also indicated in asystole and in all cases where there is tendency to syncope, where there is slowness of the pulse or atony of the capillary circulation in the skin or the lungs. On the other hand, and the reason is evident, alcohol is contraindicated in acute endocarditis or pericarditis.

A few words and I will have finished with the cases where alcohol is indicated. In generalized chronic diseases, such as anæmia, chlorosis, scrofula and rickets, alcoholic preparations may be utilized with benefit.

There are two sorts of anæmia, traumatic anæmia, due to abundant and prolonged hemorrhage (epistaxis, hemorrhage from the umbilical cord, surgical operations, etc.) and chronic anæmia, which becomes slowly established through bad hygienic conditions or organic alteration.

Apropos of traumatic hemorrhage in infants allow me to recall a case which, though rare, was very instructive.

A newly-born infant presented a small incisor tooth which was mobile and troubled, or appeared to the physician to trouble, the infant when nursing. He removed the tooth, placed a small tampon in the cavity, and left the little patient. Two hours after he was sent for in great haste, as the hemorrhage from the cavity had recommenced and could not be arrested, either by compression or perchloride of iron. He essayed every means, red hot iron, firm compression, etc., without any effect, and the child succumbed through the loss

of blood, which could not be arrested. These cases are exceptional; but it is well to know of them, and so avoid any attempt at avulsion of a congenital tooth.

But there is another form of anaemia which comes on slowly, is carried very far, and is connected with privations of every kind, sojourn in large cities and in crowded foundling, and other asylums. In such cases the alterations of the blood are of great gravity, and the treatment presents many difficulties. Alcohol is indicated, but should constitute only a part of the treatment, which should be instituted in the following manner:—

Every morning, before breakfast, a bitter aperient syrup (syrup of gentian), should be given; before each of the other meals alcohol, properly diluted, for the reasons I have so often developed before you.

During the winter, cod-liver oil mixed in the same glass with wine of bark or with porter. Commence with a few drops of oil and augment progressively the doses. Here, again, proper attention should be paid to the susceptibilities of the stomach and liver, though, as a general thing, children support very well cod-liver-oil and improve on it. Once or twice a week omit the oil and give a laxative, in order to keep the appetite good.

In rickets and scrofula this treatment will be entirely applicable, but phosphate of lime in powder should be added, or it may be given in solution or syrup; sulphurous baths, sea-bathing or bathing in water containing salt, with alcoholic frictions, will prove of great benefit.

In a third and very exceptional class of cases, there is a congenital disposition to hemorrhage, of which the nature is hidden, but where obstinate bleeding occurs on the slightest causes. This hemorrhophilic condition should be combated in the infant as in the adult, by internal administration of perchloride of iron and also by preparations containing alcohol.

As you see, against all these diseases affecting the general system, alcohol occupies but a limited place in the treatment. This is also true in chlorosis; gentian wine and wine of bark are employed with advantage; but it is used at the same time that a general treatment by iron, hydro-therapy massage, out door exercise and gymnastics is instituted; these patients will also profit in summer by a sojourn at Luxeuil or at a sea bathing resort.

One of the greatest difficulties in treating chlorosis is to find a good ferruginous preparation which agrees with the patient under treatment.

With children you may first try the mineral waters of Orezza and Bussang, and when they are somewhat older a powder containing equal parts of subcarbonate of iron and rhubarb may be prescribed. If these preparations are not successful, you will essay the effects of lactate of iron in pills of ferrum redactum, of tartrate of iron, etc. But it must always be remembered that there is a species of false chlorosis, symptomatic of tuberculosis, which is often very difficult of diagnosis in the first stages of the disease; and in this initial period of tuberculosis the employment of iron and hydro-therapy, so useful in true chlorosis, may induce grave haemoptysis and accelerate the progress of the malady. I have often observed cases where such results occurred.

Finally, as might be supposed, alcohol is formally indicated in scurvy, in purpura and in spontaneous hemorrhage, all affections indicating a very low state of vitality.

So far, we have only considered cases where alcohol was indicated, but I have mentioned several of its contra-indications in referring to different diseases. But in conclusion, I wish especially to refer to cases where this therapeutic agent is contra indicated. Alcohol is contraindicated in all nervous diseases, in nervous irritation, cerebral sclerosis, meningitis, epilepsy, eclampsia, chorea, and incipient hysteria.

It should equally be proscribed in all acute skin diseases, without exception, and in a certain number of chronic affections, such as eczema, psoriasis, pityriasis, prurigo, urticaria, ecthyma, and furunculosis.

I have already told you what I think of the employment of alcohol in acute rheumatism; I do not consider that it is of advantage in chronic rheumatism, on account of its action in diminishing urinary secretion. And I even avoid administering alcohol to children who have presented any signs of rheumatism, if the parents have any rheumatic or gouty tendency.

The indications for the administration of alcohol, are, however, so numerous, and so well defined as to place this precious medicament in the high rank I have assigned to it in infantile therapeutics.

Pilocarpin and Muscarin.

Dr. S. Ringer has made the curious observation that the antagonism of pilocarpin and extract of muscaria on the frog's heart varies in different months. In the summer months pilocarpin always strongly antagonizes extract of muscaria, but in the winter months there is often no antagonism, and even when it occurs, it is generally slight. This difference is due to temperature.

COMMUNICATIONS.

HOW BONES BREAK—THE STUDY OF FRACTURES FROM A NEW STANDPOINT.

BY EZRA MICHENER, M.D.,
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The following cursory observations have special reference to lesions of the shaft of the *Os Femoris*, as a typical fracture. But they will mostly apply as well to fractures of the long bones generally.

Comminuted fractures, and those occurring near the *extremities* of the bones, are exceptional, and may require exceptional treatment.

Simple fractures have long been divided into *transverse* and *oblique*, not so much from the direction or shape of the fractures, as from the different treatment which the two are supposed to require.

From this point of view, all fractures may be called *transverse*, where the surgeon is able to abut or interlock the fragments, so that they will maintain the *length* of the limb without the aid of mechanical extension.

On the contrary, when he fails to accomplish this, the fracture is adjudged to be *oblique*, and recourse is had to mechanical means to do what the bone and the doctor could not effect.

The *traditional belief* in the *frequency*, and the mischievous tendency of oblique fractures, does not appear to have lost *prestige* in its descent through the ages.

The terms *transverse* and *oblique*, as here defined, are obvious *misnomers*, and without the definitions, they would be meaningless. I shall endeavor to show that a better arrangement would be, into *dentate* and *sub-dentate* fractures.

The proper measure of the *obliquity* of a fracture is its *length*, taken in the direction of the axis of the bone; but its technical *obliquity* depends upon other conditions—the even and smooth *slope* of the fractured facets; probably a rare occurrence.

Neither the *antiquity*, nor the popular *acceptance* of an opinion, can be received as *de facto* proof of its correctness. They are factors, as potent to perpetuate error as truth.

I have long been led, by *a priori* reasoning, to doubt the frequency of oblique fractures, as here considered; and my own personal experience and observation have constantly confirmed those doubts. They have not been observed.

Like most others, I have accepted the popular teaching. Like them, too, I had not the oppor-

tunity of seeing and knowing how, and in what manner, the bones had been broken, which came under my care.

Some years since a case occurred, where the leg of a seven year old child was caught and dragged under a long log, on the public road. The upper anterior and inner tibial region, were entirely torn away, the bones both broken, and the leg doubled back upon the thigh, with all the fragments protruding. I at once noticed that the fractures were not either transverse or oblique, but they were nicely *dentated* or toothed.

After having cut away more than an inch of the upper tibia, which was denuded of periosteum, and left without any possible covering, I was able to interlock the *dentated fragments* of the fibula, and with the aid of a tight external splint, rendered it an available *stretcher*, to maintain the extension of the limb during the tedious months required to supply the deficiency in the tibia and its coverings.

The study of the fractures, exposed to view in this case, shed a ray of *light* on the dark obscure. I asked myself, *Is this the manner in which bones break?* If so, who can estimate the value of a correct knowledge of the facts to the surgeon? It now seems strange that I did not then pursue the investigation; but I did not.

Now, after a period of sixty-five years, devoted to the study and treatment of fractures as they occur in a country practice, I am constrained to say, that the *frequency* of oblique fractures has been greatly overrated or their character misunderstood.

On a careful retrospect of this period, I find, that of the many cases which have come under my notice, from the searching of six months to the more mature age of eighty-seven years, I have not had a single instance of *oblique fracture*.

If the *correctness* of my diagnosis is called in question, I have only to say that I have never resorted to mechanical extension, and I have never turned out a *shortened* limb or a *limping patient*.

My experience would, indeed, seem to refer the *obliquity*, so often complained of, to the *brain* of the surgeon rather than to the *broken limb*; to a mere *ignis fatuus*, which only leads to bewilder, and dazzles to blind him. But this does not bring us nearer the truth.

It is still an open question. Let us, therefore, rather inquire *how bones break*, and earnestly endeavor to demonstrate the fact by an extensive and carefully prepared series of the *bones themselves*, broken artificially.

The fracturing force is usually some modification of a *lateral stroke*, suddenly or more slowly applied, in form of a heavy pressure or crushing weight. And it may be presumed that similar forces, when similarly applied to the cylindrical bones of men, or other animals, after death, will break them much in the same manner as human bones are broken during life.

In this way we can obtain a proximate knowledge of *how*, and in what manner, bones *incline* to break, and learn the relative frequency of the forms which they present—a knowledge which would greatly assist the diagnosis and treatment of fractures.

In furtherance of this *new study* of fractures, I have begun to prepare an experimental series of bones, artificially broken. From the specimens thus obtained, there appears to be an obvious and unmistakable *tendency* to break in a *denteate* or toothed form.

In most cases the *dentures* are strong, and when properly interlocked or abutted and held together by the tonic force of the muscles, would be able strongly to resist any *lateral* displacement.

In a few cases the denticles are smaller and less apparent, but I have not found them absent in any case. Hence, as has been intimated, I would classify these fractures as *denteate* and *sub-denteate*, without attempting any nice line of distinction, the difference being only in degree and not in kind.

The nature of the force, and the manner of its application, will, no doubt, influence, in some degree, the form of the resulting fracture; but, however varied the force, the tendency to break in a *specific form* is still *manifest*. The hollow and cylindrical form of the bone, and its fibrous structure, may increase this tendency.

When we consider the adverse teaching; the diversity of opinions; the thousand means recommended; the limited opportunities of most surgeons; and the uncertainty of their diagnosis; is it uncharitable to suppose that mistakes do and must occur? And what is so likely as for the surgeon to fail in properly setting the bone? and to accept the teaching of the schools, that the fracture is oblique, and can only be treated with the aid of mechanical extension? Is there not a danger that he may thus unjustly excuse himself for the shortened limb, and a limping patient?

I have stated some facts in this paper, and elsewhere, in relation to fractures, which are irreconcilable with the traditional belief, the

teachings and the practice of most surgeons, in their treatment. I have endeavored to sustain those facts by approximate evidence derived from an extensive series of artificial fractures, to show how bones break. I am only a feeble unit, not a "Hercules," to cleanse an Augean stable. What can I do? A prominent professor and teacher of surgery writes me, "I have always taught that fractures of the long bones are, as a great law, liable to few exceptions, oblique in their direction. Of adults this is especially true; in children, transverse fractures are more common." He moreover rejects all experimental evidence, "unless performed upon the bones of the dead subject, with all the muscles, ligaments, and other structures in their natural situation." To obtain proof in this superlative degree, it would seem that the subject ought to be living and in a healthy condition. I can only cast my bread upon the waters, to be found after many days.

HOSPITAL REPORTS.

UNIVERSITY OF THE CITY OF NEW YORK.

CLINIC OF DISEASES OF THE MIND AND NERVOUS SYSTEM.

BY PROF. WM. A. HAMMOND, M.D.

Reported by H. H. SEELEY.

Epilepsy.

CASE 4.—A young man about twenty years of age, but delicate looking, came to the clinic accompanied by his mother. The history of the case, as elicited from them is as follows: Last July he was bitten on the back of the hand by a mad dog. His friends then told him that he would probably have hydrophobia, and they so frightened him that he became apprehensive of being attacked by the disease. On the first and second day after being bitten, and ten or eleven times since, he has manifested peculiar symptoms. His head suddenly feels dizzy, and then his eyes roll about or are turned toward one side; he then falls down unconscious, froths at the mouth, and bites at anything near by. He does not cry out or bark like a dog, or bite his tongue. Sometimes he does not fall, but without knowing it, he leaves his work and runs about, and may go down stairs. He is a printer, and his fellow workmen tell him that this is his habit. He can tell beforehand when an attack is coming on. Once, while in this condition the doctor came and held something under his nose; and he immediately jumped up and was all right again. After a fit, he usually has a headache and feels very sleepy. If allowed to, he will sleep half a day quietly, and with no muscular twitching. His mental faculties do not seem to have been in any way weakened. His latest attacks were on the 25th and 28th of January and on the

1st of February. He says that he is not now afraid that he will have hydrophobia.

After obtaining this history, Prof. Hammond occupied the remainder of the hour with the following interesting remarks:—

This, he said, is probably a case of epilepsy, developed by fright. There is a disease known as false hydrophobia, to which this case is somewhat analogous. I have seen several of these cases. One was that of a policeman, who had been bitten by a vicious dog. His friends so frightened him, by telling him that he would have hydrophobia, that he went to bed and sent for the police surgeon, who then summoned me to see the patient. On entering his room, I found him lying on the bed with his eyes wide open, breathing heavily, his face very red, and frothing at the mouth. If a glass of water was offered him, he would refuse it, and would howl and bark like a dog, and bite at things which were near. But if a glass of brandy was substituted for the water, he would swallow it eagerly. He seemed to think it necessary to evince a horror of water only. But to be consistent, he should have feared other liquids as well. As soon as I found that he could swallow brandy, I knew that he did not have true hydrophobia, so I sent the police surgeon in to him and told him to say, that if he did not immediately get up and report for duty, he would be discharged, for there was nothing the matter with him. This had the desired effect, for he thereupon got up and went out to his work, and has not been troubled since.

In this false hydrophobia, the patients think they must simulate the manners of a dog. So they always overact the matter. The phenomena are wholly hysterical in character; they do not intend to deceive. The diagnosis is easily made, for in true hydrophobia there is none of the biting and barking, and going about on all fours, which is characteristic in the false variety. Nor is there any horror of water in itself, but there is great apprehension of the disturbances which would be caused by swallowing the water or any other liquid. The idea of taking the water, causes the reflex convulsions. Moreover in the intervals between the attacks, the countenance has a grave apprehensive appearance, while this is not the case in the false type, for here they forget themselves often, and laugh and talk and enjoy themselves.

The case of this young man has assumed somewhat the type of false hydrophobia. But it is probably true epilepsy, though it is not a typical case, for a patient with true epilepsy does not generally bite at anything.

There are several different kinds of epilepsy. But in all, unconsciousness is the essential feature of the paroxysm, and the disease is not epilepsy if consciousness is maintained throughout the attack. This opinion, however, is different from that of many authorities. In one class of cases, the patient may become unconscious only for a moment, and have no spasm. He is perhaps walking with a companion, and he suddenly stops his conversation for a second or two, which may not be noticed by his friend, and he then recovers and goes on with his talk from where he left off. This used to be called the petit mal, and is apparently the mildest form.

In another variety there may be unconsciousness, with only a slight but nevertheless obvious spasm. A man may be eating his dinner, when it is noticed that he has dropped his knife and fork, his mouth and face twitch, and his hand becomes cramped and he pushes his chair back a little. He recovers himself in a few seconds and continues his meal. Meanwhile he has been quite oblivious of all that was going on; and were it not for this unconsciousness, the attack would not be epileptic. In a third variety, the patient loses consciousness, falls down, becomes convulsed, and has an attack of the grand mal. This is the most common form of epilepsy. The person afflicted may be sitting quietly, when suddenly he utters a loud and peculiar cry, which resembles closely the bleating of a goat, but is terrifying and liable to produce attacks in other epileptics. Thus, where many epileptics are inhumanly and unscientifically detained in one hospital ward, when one patient utters this cry it will often set off a dozen or more others. This is the very initial phenomenon which is apparent, unless, perhaps, a pronounced pallor of the face precedes it. They are, however, practically simultaneous, and it is difficult to say which is first. This pallor, which is probably caused by cerebral anaemia, soon becomes deadlier, and the patient loses consciousness and falls, generally forward, on his face.

Then the paroxysm begins. First is the tonic stage, in which the muscles are all rigidly contracted. The action of the sterno cleido mastoid compresses the veins of the neck, and hence the face becomes very livid, and the respiratory muscles of the thorax becoming stiffened, the breathing consequently ceases. This condition may last from a few seconds to half a minute, or more. If it continues for longer than a minute, death from asphyxia is liable to follow; and this is the only stage of the fit in which death may occur. This is immediately succeeded by the clonic stage, where there is relaxation of all the muscles. A long breath is now taken, and then the limbs become violently agitated and are thrown about wildly, and the tongue may be thrown forward, and it or the lips be bitten; and there is frothing at the mouth, due to the collection of thick saliva in the buccal cavity, and this may be mixed with the blood from the wounded tongue or lips. The water and feces may also now be passed involuntarily. This stage may last from half a minute to a minute. This is always followed by a comatose state, or condition of stupor with stertorous breathing, and vacant expression of countenance, and this may last from five or ten minutes to two or three hours. But in very old cases this condition of stupor is often wanting, and the patient gets up and walks off as if nothing had happened. These people often injure themselves in the first stage by falling against obstacles in the way. I once knew of a lady who, while she was carrying a basin containing about a quart of water, had a fit and fell forward with her head in the basin, and was drowned thus before she was discovered.

There is still another variety, called the abortive form. Here the patient exhibits many eccentricities, both muscular and mental. He may have hallucinations and commit some outlandish

act, or have acute mania, and so unconsciously commit some crime, while outwardly he may appear to be in full possession of his senses. Such cases appear to lead a double life. Not long ago I had an interesting case, which illustrates this. A gentleman of this city, with a history of syphilis in his youth, and whose epilepsy was therefore of specific origin, went one day into a florist's to buy flowers. He there became unconscious and remembered nothing more for eleven days. Meanwhile, he went to the depot, bought a ticket for some place in Pennsylvania, lost his ticket, was put off the cars, bought another and resumed his journey, and finally came to himself, after eleven days, in a hotel in the lower part of this city. Another case, is that of a merchant in this city, who who attacked in his office, and while unconscious, went over to Brooklyn and back again to the Fifth Avenue Hotel, and at last came to himself in front of St. Paul's Church. At present, I have a young lady under treatment, who seems to lead two separate existences. She may be in her normal condition, which we will call No. 1. Within two or three hours after, she is in condition No. 2, and is now unconscious of all that took place while she was No. 1. This in turn passes off, and she again becomes No. 1, and is then unconscious of everything she did while No. 2. A curious thing is, that she has certain favorite employments for each condition. And she has also certain friends whom she recognizes only in one condition, while in the other condition they are her enemies, and she has now a different class of friends.

This has been going on for six or eight months, and the periods of her normal condition, are gradually becoming shorter and shorter, so that in time, she will have completely changed her identity, and will remain in condition No. 2. There are several instances on record of similar cases.

There is another form of epilepy, which is entitled to be considered as a separate type. It is characterized solely by hallucinations with unconsciousness. Hallucinations simply, without loss of consciousness, is not epilepy. Last summer, I had a case of a young lady who was subject to these visions. She always had an aura preceding the attack, which was a peculiar, indescribable sensation about the head. One day, while sitting in my office, she had an attack. She said, "now doctor it is coming on, I feel it." Then she went on, "there is a beautiful white swan. Look at it; over there, by the fire. It is eating. I never saw one so large and white before." When asked if she thought it really was a swan, she said "no, I do not; but it seems as real as anything else in the room." Her eyes then closed, and her head fell forward on her breast, and she became unconscious. In a few minutes she recovered. She has a dozen such attacks a day. She also has the grand mal. Is treated with the bromides. I have had half a dozen similar cases.

I read a paper on this subject before the Neurological Association, and none of those present doubted that these cases were true epilepy; but we differed as to the probable location of the seat of the disease.

My opinion was, that the lesion was in the optic thalamus, while they believed it to be in the cortex.

All the varieties of epilepsy are generally preceded by an aura, in some part of the body. This may take the form of some morbid fear or apprehension, or it may be some motor, or sensory impression. It generally starts from the pit of the stomach, probably originating in the solar plexus, and shoots upward to the head. As soon as it reaches the head, there is loss of consciousness. The aura often seems to start from the thumb, and then flows up toward the brain. When this is felt, the paroxysm may often be averted by tying a string quickly about the thumb, or other origin, thus apparently cutting off the flow of the aura to the head.

The next question is, how to treat this young man. He has not had much treatment so far. He has taken cod-liver oil, and some medicine which he says was red and bitter. He took a tablespoonful three times a day. It did not taste like salt, so was not a bromide. The treatment of all the forms of epilepy is, however, about the same. It consists almost exclusively in the administration of some of the bromides. But there are certain other remedies now used which seem to have almost as good an effect as they in some cases. Any of the bromides may be given in doses of fifteen grains, three times a day to begin with. The sodium salt is more pleasant because it tastes exactly like common salt, and so if desired it may be taken with the food. The majority of cases will get well under the long continued administration of bromide of sodium. Experience has proved the following to be one of the best plans of treatment:— Dissolve eight ounces of bromide of sodium in a quart of water. Of this, take a teaspoonful, three times a day. After three months, add one teaspoonful more to the night dose, and after another three or four months add a teaspoonful to the afternoon dose also. At the expiration of a year, do the same with the morning dose, and continue with this for a year or more thereafter. If no symptoms of the disease have meanwhile appeared, then gradually reduce the doses, and at the expiration of the third year, stop. The attacks do not usually return after this course of treatment.

Ordinarily, however, patients stop the medicine after a month or two, and in such cases, the attacks almost invariably return. It is then almost impossible to bring these patients under the influence of the bromides again. The doses will have to be at least doubled, and this may so derange the system, as to make it impossible to take the medicine longer. I have probably seen more epilepy than any man in this country, having in the last seventeen years treated over nine thousand cases, and my experience is, that it takes at least two years to overcome the disease. And if I had it, I would take bromides all my life.

This is all the treatment essential, but certain other methods may be tried. A seton, or the actual cautery, applied to the back of the neck is sometimes beneficial, especially in those cases where the patient bites his tongue. Some say they believe it is because the disease is here located in the medulla oblongata. Careful diet should also be observed, and pastry, nuts, candy, cake, and other things which disagree with the patient, should not be eaten.

Whenever there is an aura preceding the convulsion, that especial attack can invariably be prevented by the inhalation of nitrite of amyl. There is no danger whatever in its use. Four or five drops should be carried about in a small homœopathic vial, and the moment the patient feels the attack coming on, he should pour this out into the palm of his hand and breathe it in. If he gets but two whiffs of it, this will generally be sufficient. The effects are immediate. The heart beat is greatly accelerated, the blood vessels become dilated, and so make the face very red, and there is a sensation as if a thousand needles were pricking the face. These symptoms soon pass off. During the paroxysm the less done the better. Merely keep the head on a level with the body or slightly elevated, and loosen the cravat and collar and put something between the teeth, to prevent him from biting his tongue. For this purpose it is well for him to carry about him a champagne cork, attached to a string, and to thrust this between his teeth whenever he feels an attack coming on. It is a fact that, after total extirpation of the tongue, a man can speak perfectly, while the loss of half an inch is followed by great disturbance of speech.

Where the bromides have failed, nitrite of amyl, may be used internally. One drop on a lump of sugar should be given three times a day, and the dose gradually increased to three or four drops. Or a diluted preparation may be made, by adding one hundred drops of alcohol to one drop of nitro-glycerine, and of this, one drop should be given three times a day, and the dose gradually increased to ten drops. Either of these will often succeed where the bromides have accomplished nothing.

This young man seems to have the abortive form of epilepsy, for he does not fall in the attack. We will give him fifteen grains of bromide of sodium, three times a day, and have him come back in two weeks to report.

Notes on Case 4.—Epilepsy is historically one of the oldest diseases known. But among the ancients it was not distinguished from other diseases which were characterized by convulsive movements, or by any extraordinary or unaccountable phenomena. All persons affected with any of these diseases, as well as the insane, were called demoniacs, because the unusual manifestations, which were quite involuntary, were supposed to be due to an evil spirit taking up his abode within the individual; and this spirit was

called a demon. And, so among the diseases classed as demoniacal, we find frequent descriptions of epilepsy in its various forms, in the writings of the ancients. Such are found in the works of Homer, Herodotus, Euripides, Hippocrates, and later writers among the Greeks, as well as in Josephus and the Hebrew scriptures among the Jews.

Inasmuch as the disease was supposed to be caused by the possession of evil spirits, the only method of treating it at that time was by means of spells, incantations, exorcisms, and magic, the purpose of which was to induce a good spirit to come and drive away the demon. Hence epilepsy was always regarded in a religious manner, and so was called among the Greeks "the sacred disease." Hippocrates, however, wrote a special treatise concerning this malady, wherein he combated the popular idea of its cause, and maintained that it was no more of divine origin than were all other diseases.

But the Jews always held that it was of divine origin, and believed that it could only be removed by the aid of the deity. So when Christ came and manifested his power to cast out these so-called evil spirits, this was one of the strongest proofs of his divinity, to the people of that age. It is not probable, however, that all of those cases in which it is recorded that Christ cast out devils were epileptiform in character. But in Mark ix, 17-27, there is quite a detailed description of a case which was undoubtedly epilepsy. In Luke ix, 39, the same case is described briefly, thus: "And lo, a spirit taketh him, and he suddenly crieth out: and it teareth him, that he foameth again, and bruising him hardly departeth from him." Here we have the sudden onset of the attack, the peculiar initial cry, the convulsive movements, in which the tongue is bitten and the body bruised, the foaming at the mouth and the slow recovery from unconsciousness.

The writers of these accounts only follow the popular superstitions, in describing the disease as of supernatural origin.

It was only in later days, when the study of disease became more scientific and practical, that these superstitions partially died out. But even at the present day, men have not become entirely free from the tendency to ascribe to supernatural origin many things which they cannot otherwise account for. An example of this class of men is the large sect called "Spiritualists."

EDITORIAL DEPARTMENT.

PERISCOPE.

Tea and Coffee as Nervines.

Dr. Lewis Shapter writes, in the *British Medical Journal*, July 9th:—

The only restoratives to the nervous system which have stood the test of time, popular ac-

ceptation, and practical usefulness, are infusions of tea and coffee, and such like beverages. It needs no medical knowledge to speak of the increased sense of respiratory power and muscular vigor; the promotion of general comfort and warmth; the cooling of the body, the result of the slight increase of perspiratory functions; and the general restorative feeling when the body is

overcome with fatigue, which is so generally and justly attributed to the use of tea, or, as will be presently shown, its active principle, theine, in the daily experiences of life.

Failing, however, popular acknowledgment, medical and scientific research point to one and the same conclusion, that infusions of tea and coffee are restoratives to the nervous system, and indirectly act as sustainers to the circulation. Chemistry has shown that this action is dependent not upon the multiple constituents of the infusion of the leaf and berry, not upon any complex association of materials, but simply and entirely upon the presence of one substance—theine—which is the active and essential principle of all these and allied substances, and is known to us in the form of silky prismatic crystals soluble in water. The quality of tea or coffee is, therefore, properly determined by the percentage of theine it contains, which varies from three to six per cent., and not by the delicacy and fullness of flavor which is imparted by the volatile oil. Medically speaking, this theine has a totally distinctive action from the infusions of which it forms a part. In the form of an infusion of tea or coffee, we have to deal with a large proportion of astringent matter, in the form of tannic acid, and with the presence of the essential oil, which is an excitant to the nervous system, and is the substance to which must be ascribed disorders of the nervous system which result from tea-drinking, such as palpitation of the heart and sleeplessness. The theine, upon the other hand, of which there is about one tenth of a grain in an ordinary cup of tea, is the restorative agent to the nervous system, and is opposed, in its therapeutic properties, to the action of the essential oil. The infusion, therefore, of tea may induce palpitation in a heart liable to excessive or incoördinate action: but theine, on the contrary, may be looked to, therapeutically, to quiet palpitation; the infusion, by being an excitant, may prevent sleep. Theine, by being a restorative and an indirect sustainer and regulator of the circulation, may induce sleep. Individual medical investigators have, more than this, attempted, from time to time, to show that the action of theine is allied to that of quinine, as, in medicinal doses, the one has proved curative in allied diseases as well as the other, and, moreover, that the nutritive value of theine may bear comparison with that of kreatine, one of the principles of meat.

All this is sufficient to show that theine is already a tried and proved agent, with a recognized dietetic position; and, if it has not hitherto occupied a place supplanting the use of alcohol, it is because (1) it has remained unrecognized as the active and essential principle upon which all the good qualities of tea and coffee, as restorative beverages, really depend, and (2) it has not been presented to the public in a form which would tend to render it acceptable or agreeable. In the form of an aerated water, theine offers the means of supplanting the abuse of alcohol. It forms an agreeable beverage, imparting a somewhat dry flavor to a distilled water, which may be sweetened and flavored to taste, and it offers a means for awakening scientific thought to the study of a simple remedy for a national abuse.

Pasteur's Investigations on Rabies.

The Paris correspondent of the *British Medical Journal* writes of M. Pasteur:—

This eminent biologist has made some most important contributions to science, and his name will ever be connected with his ingenious researches on fermentation, and other important discoveries; but he has drifted into a more speculative kind of scientific experiments. As an example of this may be mentioned his recent experiments with the saliva from the mouth of a child with rabies, with which he inoculated rabbits and guinea-pigs. All the animals died, and their blood was found to contain myriads of micro-organisms, which he concluded to be the specific germs that produce hydrophobia. He then performed a second series of experiments, by inoculating other rabbits with the blood of those that had succumbed from the first inoculation. These also died, and their blood was found to contain the same micro organisms. He, however, soon discovered, by further experiments, but this time with the saliva of children who had died from other diseases, that the results were precisely similar to those observed with the saliva of the child. In pushing his experiments still further, but with the saliva of a healthy adult, he met with the same results and the same germs as in the preceding cases. This rather puzzled the persevering experimenter, but he is not so easily beaten; and if he has not yet discovered the real nature of the virus of rabies, he fancies he has laid his hand on the organ that secretes it. According to him, the virus of the rabies is not secreted by the salivary glands, but by the brain—or rather, the latter is the seat of the malady; and in support of his thesis, he inoculated a small portion of the bulbous extremity of the medulla oblongata of a rabid animal under the cerebral covering of a healthy animal. The latter became rabid. These results were recently communicated to the Academy of Medicine, in a paper read by the general secretary for the learned experimenter, which called forth some trenchant remarks from M. Béchamp, who positively refused to accept the principle on which M. Pasteur has hitherto founded most of his theories, and added that it is not outside the body that one must look for the germs or elements of destruction; but they are to be found in our own body, in the form of microzymes, which are the only cause of all fermentation, and the lowest element to which our organism can be reduced. Nothing daunted, however, M. Pasteur continues his parasitic warfare with unbroken zeal; and, by further experiments with human saliva, he has made the startling discovery that the saliva of a person fasting is venomous, as it contains the same parasites as those found in the saliva of children above described; but that, on the person breaking his fast, his saliva is deprived of the venomous quality, as the parasites are taken into the stomach with the food. All this is terrible to contemplate; and even M. Pasteur was confounded, as the result of his experiment was as awful as it was unexpected. The learned biologist made no attempt to offer any explanation, but said that he would for the present only point to the fact, which, he added, was in itself very suggestive.

Morbid Growths in the Ear.

In our report of the Otological department of the International Medical Congress, we inadvertently omitted to mention a paper by Dr. Laurence Turnbull, of this city, on the above subject, and which is of general as well as special interest. In it were enumerated the different kinds of tumor observed in the three parts of the ear, as well as in the cranial cavity, involving the acoustic and other nerves.

Attention was drawn to "fatty metamorphosis of the organ of Corti, resembling sarcoma of the auditory nerve, as described by Moos, amyloid degeneration of the auditory nerve, as described by Voltolini, and corpora amylacea, found in the semicircular canals of man, and described by Lucæs."

Treatment.—Where the growths can be reached, the only successful plan of treatment is the early removal by excision by the knife, preventing danger of hemorrhage by the use of the ligature, clamp forceps, thermo- or galvanocautery. Removal of diseased bone by forceps, sharp spoon, revolving knives, or the surgical or dental engine.

"The most important plan of treatment is the removal of all vascular or polypoid growths as soon as they are brought to the notice of the aural surgeon. All puncturing or irritating of the above growths by means of needles, small, sharp knives, or caustics, is to be entirely avoided, for, in our experience, all such meddlesome surgery tends to increase and inflame them, and may change an originally benign growth into a malignant one."

The Treatment of Club-foot with Apparatus.

Dr. James S. Green, of New York, contributes to the November number of the New York *Medical Journal and Obstetrical Review*, an article in which he argues that a great majority of the most intractable forms of club foot may be treated successfully without the use of the knife. To effect the purpose of safe, comfortable, and certain reduction of chronic club-foot, by mechanical means, he remarks, the instrument must perform the following functions:—

1st. It must effect by extension the separation of the articular surfaces of the bones involved, exactly in the position in which they are presented by the deformity. The extension should be so complete that the synovial surfaces of the tarsal bones will slide over and not upon each other when the foot is twisted into its normal position. (This condition being obtained of itself, reduces to a minimum the amount of force necessary to be exerted in moving the bones, which are thereby not jammed against each other, the synovial membrane and the cartilages injured, and ulceration of the soft parts made imminent.) 2d. It should produce the gradual reduction of the foot to a normal position by continuous stretching, acting exactly in an opposite direction to the lines of the deformity.

In talipes equino varus (the most common form) it should flex the foot, thereby overcoming the contraction of the gastrocnemius and soleus muscles,

while at the same time it should abduct the foot, reducing the rigidity of the tibialis anticus and tibialis posticus muscles. It should stretch the plantar fascia, after overcoming the tendo Achilles, and during the reduction of the tibial muscles. Withal, the instrument should be light in weight, portable, and easily worn, so that the patient may assist the cure by walking upon the foot, which is being gradually extended and drawn toward its normal position. It should be so constructed that, as the opposing tissues yield to the applied forces, the advantage gained, be it ever so little, can be easily seized and retained. The "compound club-foot twister," an instrument employed by the author and his associate, Dr. C. F. Stillman, is described as being so constructed as to twist the anterior portion of the foot on the posterior at the medio-tarsal joint, and also to gradually and painlessly alter the angle of the foot with the leg at the ankle joint. It consists of a local extender, provided with a slotted arch for graduated movement, placed each side of the ankle-joint, and another placed in front of the arch of the foot. Below, these are attached to a flexible felt or leather sole, on which the foot is firmly fastened by bandages; and above they are connected to metal terminal plates, which are bound down to the leg by some immobile dressing. This splint allows the foot to be twisted back into shape without pain, as it provides a local extension which relieves the parts from strain and attrition during the twisting, and also allows the patient to walk without interfering with the action of the instrument, the foot being completely under the control of the surgeon. The instrument and dressing used in a case related, weighed thirteen ounces.

Mysophobia.

The following report, by Dr. J. C. Shaw, of Brooklyn, of a case of this rare affection, we copy from the *Archives of Medicine*, for October, 1881:—

E. J., a male, aged 15 years, brought to me by his mother on May 26, 1879.

For the past few years has enjoyed good health. About six weeks ago the first decided symptoms appeared, but for months before his mother had no idea that he was excessively particular to wash his hands very clean, which is unusual for boys, as she remarks. About six weeks ago he began to say to her: "He had been touching the paint; did she think it could come off the wall and poison him?" He would not take off his own hat, but ask her to do it for him; also, to unbutton his coat. If he wished to come in the front door he would not take out his nightkey and come in, but would knock on the door with his elbow. He is afraid that if he touches anything with his hands it will poison him; every time he touches *anything* he is very particular to wash his hands very clean. He spat on the carpet a few days ago, and then rubbed it off with his boot; he immediately came down stairs to his mother, told her about it, and asked if she thought he could have got any of the color off the carpet so as to poison him. He would go about holding his hands and arms away from his body,

as if he were afraid of touching his clothes. When he goes to bed at night he will wash his hands a dozen times and use as many towels; if prevented from doing this he appears disturbed, and will sometimes rush over to the water-pitcher and thrust his hands in, which appears to satisfy him. For a short time past he has frequently asked his mother if he had cobwebs on his face, and especially about his mouth. His mother thinks that of late he has presented a vacant, idiotic expression that he never used to have.

When the boy is talked to he speaks sensibly, but will give no explanation of why he is afraid of being poisoned by touching things; says he has frontal headache at times, especially when he goes to school; for the past six weeks has not gone to school, and has not had the headache, but a few days ago had a sharp pain in left occipital region. He looks dull and apathetic; is not given to self-abuse. He has a decided neurotic family history: the brother and father of his mother suffered from some nervous disorder, but no accurate account of it could be obtained; but I infer that it is a mental disorder. The marked neurotic family history in this case inclines me to the opinion that graver mental disorder will be developed in this boy.

The Therapeutic Use of Aloes.

On this subject, Dr. John L. Marsh, of Greenfield, Indiana, writes, in the *Therapeutic Gazette*, for September, 1881:—

Aloes has its peculiar action and its "specific," for certain symptoms, and when given with these symptoms present, will always do good, and not harm, as claimed.

There are other medicines that greatly assist aloes in its action in certain cases. Notably among these are belladonna, hyoscyamus, and nux vomica, of the nervines, and preparations of cinchona bark and iron, of the tonics. The last mentioned article fits in well with aloes in a certain class of cases where the patient is pale, asthenic or cadaverous looking, with poor appetite, nervous, torpid bowels, moving once a week, or two weeks, accompanied with labor-like agony. If the patient be a female, the menstruation will be scant or entirely absent, owing to a general atony of the pelvic organs. Aloes is peculiarly adapted to these symptoms, and with the assistance of iron, will often relieve as no other remedy will. One-fourth to one grain of aloes, and one to two grains of sulphate of iron, given three or four times a day, will have a wonderful effect on the symptoms above mentioned. Aloes is the remedy for amenorrhœa with these symptoms, and should be given in increased doses just before the expected period. Aloes further shows its curative effect in these cases by the dose required to be given, which, if at first large, can be gradually decreased, until it can be entirely discontinued. With most purgatives given for the cure of constipation the dose has to be increased.

Aloes should usually be given in small doses, and not combined with more active purgatives. The combination indicated are about all that can be made that will prove serviceable. With its special indication, combined with nux vomica

and cinchona bark it makes an excellent tonic. One-half grain aloes, one-fourth grain extract of nux vomica, one-half grain cinchona bark, in pill, or if a more stimulating preparation is needed, make a solution with gin, whisky, or alcohol; this makes a very efficient tonic. Aloes produces its effects in much smaller doses when thus combined than when given alone.

The Hereditary Tendency of Gout.

In a recent lecture published in the *Medical Press and Circular*, Mr. Jonathan Hutchinson says:—

Gout is very difficult to define, or to explain satisfactorily in accordance with the laws of inheritance. Its peculiarity may best be described as an unhealthy condition of the blood, due to accumulation in it of uric acid and of salts; probably, too, in gouty patients, there is some kidney affection, advancing gradually to definite disease of that organ, and with this and the increased tension endured through it in the arteries, they undergo structural changes; indeed, it may be said that all the tissues of the gouty subjects undergo changes which result in their being variously modified, all being of necessity influenced by the condition of the blood circulating through them. They are likewise considerably influenced by the inherited tendency to gout, transmitted, as this assuredly is, from generation to generation; and on such persons as are thus affected, cold immediately acts as a test of their condition, and through the effects it produces will demonstrate which tissues of the body are most susceptible or most changed. Gout, in fact, is concerned all with the structures, showing preference for none in particular, and the most certain and useful information about it we can hope to obtain will be that gained from a study of its origin; that is, how it has been primarily induced. This inquiry would lead to the conclusion that it has been gradually bred in past generations, and by the action of the same causes as are in this present time serving to intensify it. In fact, gout is now being bred among us by the perpetration of errors in diet, etc.; but it is a difficult matter, nevertheless, to initiate it in those who possess no inherited tendency to the disease, and it requires to be perpetuated through several generations in order to acquire a high degree of potency. That gout, however, is hereditary, is unquestioned, and thus we have in it a disease acquired originally by indiscretions in diet, and attaining powers which ensure its transmission to succeeding generations. As has been seen, diatheses are influenced by conditions obtaining during the life of the individual, and are modified by other diatheses. Hence, the probable result of intermarriage of a rheumatic person with one whom gout had developed, would be a hybrid affection, exhibiting the phenomena of both gout and rheumatism, and thus the term "rheumatic gout" is quite justified. It is, moreover, a term which ought properly to be applied to a large number of so-called gouty subjects, and when there is this occurrence of disease possessing the twofold characteristics, there has undoubtedly been a transmutation of diathesis during transmission.

Removal of the Uterus for Cancer.

The November number of the New York *Medical Journal and Obstetrical Review* contains a "special article," by Dr. Andrew F. Currier, of New York, in which the various methods of removing the entire uterus, for cancer, as practiced by Freund, Schröder, Czerny, and others, are reviewed, as well as the general question of the advisability of removing the organ. He thinks the advantages of the vaginal method over that of Freund (by laparotomy) are enormous; there is but one section of the peritoneum: the intestines are unharmed, there is a better opportunity to discover diseased tissue, which is most likely to be situated in the vicinity of the cervix, and most important of all, the patients often survive, which is rare by Freund's method. But most patients are not likely to be benefited by either of these serious operations; the most hopeful cases will be those in which the patients are warned of their danger in the early stages of the disease, and in such cases Schröder's supravaginal excision of the entire cervix is most likely to prove of service. This operation, while not so radical as removal of the entire organ, and hence not so efficient in cases involving the tissues above the internal os, is far less grave, and is, besides, more thorough than amputation of the cervix as it has ordinarily been done in the past. In those rare cases, however, in which the body of the uterus alone is involved, there is no alternative to laparotomy, either by Freund's operation or some modification of it. As to drainage—a most important item in such cases—a perfect system seems impossible, but Bardenheuer's, although in the hands of others it has not fulfilled its author's expectations, affords as good results as any yet devised. As to the broad question of whether cancer of the uterus, and so cancer in general, can be radically cured, the author thinks the logic of events points to its approaching solution.

The Ventilation of Sewers.

The Sanitary Engineer, says:—

The system of ventilating sewers by perforated covers at frequent intervals, is now widely practiced both in Europe and this country, and is generally received by engineers as the best method yet devised. Occasionally trouble may arise, but we venture to say that the cause may be removed by proper care. We can say that any foulness must be due to one or both of these two causes, viz.: an inadequate number of vent holes, or an unnecessarily foul state of the interior of the sewer. If such foulness exists, it may arise from either one or a combination of several causes, such as the following:—

1st. Improper planning, such as a deficient inclination, or excessive size, or improper form of section, rough materials, irregular gradients, badly devised junctions or branch inlets, angles favoring deposit, etc.

2d. Poor workmanship, such as rough brick laying and bad alignment.

3d. Poor materials, either coarse and rough in texture, or perishable and crumbling from premature decay.

4th. Want of proper care on the part of those

having charge of the administration, such as want of flushing and cleansing, which are needed more frequently in some sewers than in others.

5th. Inadequate protection at inlets to guard against the introduction of garbage or offal in solid form, or solid matter which would favor the accumulation of filth, such as sticks, stones, gravel, silt, etc.

In short, if sewers are properly planned, well-constructed, and carefully looked after, the perforation of man-hole covers for purposes of ventilation is not likely to lead to trouble, and such trouble, when it occurs, is generally a symptom of something wrong in one or more of the above particulars.

REVIEWS AND BOOK NOTICES.**NOTES ON CURRENT MEDICAL LITERATURE.**

—We have recently added to our list of exchanges two new medical journals:—

The New England Medical Monthly, edited and published by Dr. William C. Wile, of Sandy Hook, Fairfield county, Conn., contains forty-eight pages of reading matter arranged. The first number has five original communications, besides editorials, book reviews, correspondence, society reports, abstracts from other journals, etc., etc. Judging from the contents of this number, and its general appearance, this promises to be a satisfactory journal. Price, \$2.00 per annum, in advance, or 20 cents per copy.

* *The Northwestern Lancet*, a semi-monthly journal, edited by Dr. Jay Owens, of Saint Paul, Minn., is as yet a puny little infant, the first number containing but six pages of reading matter, exclusive of advertisements, and it appeals to the profession of "the new Northwest," of which it is the pioneer medical journal, to supply it with an abundance of wholesome and nutritious food, in the way of original communications and subscriptions, to enable it to weather the first winter, and there is no reason why, under good management, its growth should not be in proportion to the rapid development of that section of the country which it represents. Subscription only \$1.00, in advance.

—The following pamphlets have also been received:—

A Historical Sketch of the Medical Societies of Baltimore, Md., from 1730 to 1880, by Dr. G. L. Taneyhill. This paper was read before the Medical and Chirurg'cal Faculty of the State of Maryland, Oct. 18th, 1880, at its celebration held in honor of the Sesqui Centennial Anniversary of the Founding of Baltimore, and has been reprinted from the Transactions of the Faculty for 1881.

Optic Neuritis; an essay read before the Baltimore Medical Association, April 11th, 1881, by Dr. A. Frudenwald, of Baltimore, and reprinted from the Maryland *Medical Journal*, Aug. 1st and 15th, 1881.

A contribution to the Study of Fractures and Dislocations; read before the N. H. Medical Society, June 21st, 1881, by Dr. John Randolph Ham, of Dover.

Report to the Illinois State Medical Society, on Laryngeal Tumors, by Dr. E. Fletcher Ingalls, of Chicago; reprint from the Transactions of the Society for 1881.

An Essay on Eye Affections from Malarial Poisoning, by Dr. Charles J. Kipp, Surgeon to the Newark Charitable Eye and Ear Infirmary; extract from the Transactions of the Medical Society of New Jersey.

An Essay on Antiseptic Surgery; read before the Luzerne County Medical Society, Nov. 10th, 1880, by Dr. Geo. W. Guthrie, of Wilkesbarre, Pa., and republished by request of the Society.

Report of Section on Ophthalmology and Otology, by Dr. Samuel Theobald, of Baltimore; reprint from the Transactions of the Medical and Chirurgical Faculty of Maryland, for 1881.

Ovariotomy During Pregnancy, by Dr. H. P. C. Wilson, of Baltimore; a very interesting and instructive report of a case of ovariotomy performed on a lady, when nearly four months advanced in pregnancy, the tumor removed weighing about thirty pounds; the lady recovered, went to full term, and was delivered of a healthy female child, living at the time of this report. This paper comes to us, reprinted from the Gynecological Transactions for 1881.

How is Your Man? A most interesting little book, recently published by Messrs. Lee & Shepard, of Boston, under the above title, vividly portrays that abominable system of graveyard insurance, the most inhuman of all practices to which the cupidity of man could possibly lead; a practice, which has recently spread to an alarming extent over portions of this State. The principal characters in the book are the "Sharks of Sharkville," whose usual greeting, "how is your man?" shows the interest they take in their insured subjects. The story is founded on facts, and though the picture is strong, it is perhaps in no instance overdrawn.

OUR LITERARY EXCHANGES.

—*Harper's Monthly*, for November, closes the sixty-third year of that unrivaled magazine. Its illustrations are increasingly beautiful. The contents of this number are, "In Cornwall with an Umbrella;" "A Week in a Dug-out;" "Journal-

istic London;" "Oh'o's First Capital," and "The Land of the Midnight Sun;" all finely illustrated. A Reminiscence of Arthur Stanly, with an excellent portrait, by Thomas Hughes. The continuation of C. F. Woolson's serial, "Anne," and "A Laodicean," by Thomas Hardy. "Tilghman's Ride from Yorktown to Philadelphia," finely illustrated by the artist and poet, Howard Pyle, is a charming poem. \$4.00 a year, in advance.

Scribner's Monthly, or the *Century Magazine*, commences the twenty-third volume with its new name. It is replete in valuable articles connected with painting, sculpture and the drama. Its contents: "The Diligence Journey in Mexico;" "In the Footsteps of Fortuny and Regnault;" "Around Cape Ann;" "Costumes in the Greek play at Harvard," and "The So-called Venus of Melos," are highly and beautifully illustrated. Mrs. F. Hodgson Burnett's new serial, "Through One Administration," commences favorably. We shall miss Dr. Holland's ready pen and cultured mind in topics of the times and other literary departments. Terms, \$4.00 a year, in advance.

The *American Agriculturist* for October contains a handsome supplement containing the prospectus for 1882, with a list of four hundred and thirty-three premiums. The *Agriculturist* stands first, in excellence and value, of all other agricultural journals, and is invaluable to every farmer. Orange Judd & Co., New York, \$1.50.

Littell's Living Age, issued every Saturday, by Littell & Co., 17 Bromfield st., Boston, contains the best selections of the ablest and most cultivated writers, on literature, politics, art, and science in Europe, especially of Great Britain.

Harper's Weekly is the best illustrated weekly in the country and always contains valuable literary and other articles.

The *Germantown Telegraph*, and *Vermont Journal* are unexceptional family papers; "The Independent Evangelist," "The Presbyterian Banner," "The Presbyterian," "The Methodist and Zion's Herald," are regular and welcome exchanges.

BOOK NOTICES.

The *Therapeutics of Gynecology and Obstetrics*, comprising the Medical, Dietetic and Hygienic Treatment of Disease of Women. Second edition, thoroughly revised and greatly enlarged. Edited by William B. Atkinson, A.M., M.D., author of "Hints in the Obstetric Procedure," Lecturer on Diseases of Children at

the Jefferson Medical College, etc., etc. Philadelphia: D. G. Brinton, 115 South Seventh street, 1881. 8vo. pp. 571. Price, cloth, \$4.00; leather, \$5.00.

The first edition of this work having been exhausted in a little more than a year from the time of its publication, and a new edition having been called for, the editor has availed himself of the opportunity thus presented, to thoroughly revise the text of the previous edition, and to make such additions as the rapid progress in the departments of gynecology and obstetrics would necessitate, in order to bring the work fully up to date. Never before has greater activity been manifested in the literature bearing upon this subject than at the present time, and the most recent productions of German, French, and English writers, as well as those of our own country, have been carefully scanned, and nothing left out which seemed of value. A few less important and rather obsolete passages of the first edition have been omitted, yet so extensive have the additions been, that they have increased the volume by two hundred and six pages, bringing it up to the size of the first two volumes (*Medical Therapeutics and Surgical Therapeutics*) of the *Modern Therapeutics Series*, of which it is the third, and the list of authors represented comprises no less than five hundred and fifteen names, among which are one hundred and nineteen that did not appear in the first edition.

The general plan of arrangement remains the same as that of the previous edition, the volume being divided in nearly two equal parts, the first on gynecological therapeutics, the second, on obstetrical therapeutics. Each part is, again subdivided into three chapters. The first chapter of Part I treats of Diseases of the Ovaries, Disorders of Menstruation and General Diseases; the second treats of Diseases of the Uterus and its Annexes; and the third, of Diseases of the Vagina, Urethra and Bladder. The three chapters of Part II treat respectively of the "Disorders of Pregnancy," "Complications, Disorders, and the Sequelæ of Parturition," and "Diseases of the Mammary Glands and Lactation." Among the more important additions, we note: (1) An introductory to the first part, containing (a) General Remarks on the Treatment of Diseases of Women; (b) Balneo therapy in Diseases of Women, and (c) Plan for a Gynecological Examination; (2) An introductory to the second part, on Case Taking in Midwifery; (3) Abstracts of papers on Antiseptics in Labor, by various authors; also on Disorders of the Eyes in Pregnancy, Placenta Praevia, Coccydynia, Fetid Menstruation, and

others interspersed throughout the work. Besides these additions, something new has been added to the therapeutics of nearly every disease mentioned in this volume.

The work, as now issued, is a faithful presentation of the most approved therapeutic methods in diseases of women, as set forth by the most eminent authorities of modern times. The original text of the authors quoted has generally been followed, and the exact formulæ most frequently prescribed by them have been reproduced. It has been objected by many—and not without some show of reason—that to furnish physicians with ready-made prescriptions would be to encourage routine practice, and would surely lead to neglect of study; yet they are found in nearly all text-books on practical medicine, and whatever may be said against them when they represent the mode of treatment of one physician only, we believe that in a work of the kind before us, when properly made use of, they rather serve to stimulate the practitioner to further investigation. To illustrate: We wish to look up the treatment of a given disease, say dysmenorrhœa. We find at once a brief résumé of the treatment adopted in the various forms of this troublesome affection, by no less than thirty-one eminent practitioners, and the active remedies employed by these number nearly thirty. Of these we select those which appear to us most suited to the case we have in hand; we read up on the action of these remedies and their therapeutic application, in such works on *materia medica* and *therapeutics* as we have at hand; we, perhaps, go further, and procure the original works or journals whence the abstracts in this work are taken, in order to familiarize ourselves more thoroughly with the views therein set forth; we at last select our remedies and make up our prescription: this, we may do quite independently of the formulæ before us, or, selecting one of these, we may omit any ingredient we deem useless or contra-indicated in our case, and add whatever to us seems indicated. We have now become thoroughly interested, and while we watch the effects of our first prescription, we will be sure to study up the other methods of treatment to which our attention has been drawn. It may again be objected that some physicians will not study if they can avoid it; but as these will still practice, until prevented by law, it is better, both for them and their patients, that they have somebody else's treatment to guide them, than nothing at all. In conclusion, we wish to say that the *Modern Therapeutics Series* represents in itself the most complete library on practical medicine, probably, found anywhere.

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AN ACTIVE STATE BOARD OF HEALTH.

The Board of Health of the State of New York is setting about its work in a most energetic and commendable manner. It has published a series of directions for local boards, stating their organization, powers and duties, and has been distributing, widely, the act for the Preservation of the Public Health, passed by the Assembly last winter. This act is lengthy and is very carefully drawn, so as to provide effectively for the working of local Boards without conflicting with municipal and other authorities.

Another document of universal interest is a circular containing a series of model sanitary regulations, drawn up for adoption by local health boards. The first section of these proposed regulations declares that whatever is dangerous to human life or health, should be declared illegal.

The following sections provide for the purity of drinking water against contamination by privy vaults and wells; against throwing offal in the streets; against injuries from the refuse matter

of manufactories; and against the selling of any spoiled or adulterated articles of food. The article in reference to the management of cases of infectious disease is stringent, but not too much so. We quote it in full:—

Any householder in whose dwelling there shall occur a case of cholera, yellow-fever, typhus or typhoid fever, scarlet fever, diphtheria or smallpox, shall immediately notify the board of health of the same; and until instructions are received from the said board, shall not permit any clothing or other property that may have been exposed to infection, to be removed from the house. Nor shall any occupant change his residence elsewhere, without the consent of the said board, during the prevalence of any public danger from said disease; and all physicians and other attendants upon any person sick with smallpox, cholera, typhus, typhoid or scarlet fever, diphtheria or other disease dangerous to the public health, shall forthwith report the same to the board of health. And it shall be the duty of such physicians and attendants to avoid exposure to the public of any garments or clothing about their own persons that may have been infected from exposure to any diseases.

Persons having infectious diseases are also forbidden to enter the city limits; and those dying by such are forbidden to receive a public funeral. The next section provides for the proper slaughtering of cattle; that cattle affected with contagious disease must not be brought into the town limits; and an animal having glanders or farcy, must not be used or retained within the corporate limits.

Special directions are recommended to prevent the erection of manufactories or places of business detrimental to health, and to subject hotels, boarding houses, and the like, to the regular inspection of the health officers. Finally, the adulteration or watering of milk is prohibited.

With these general directions a special circular is added, giving the rules to be observed in the public registration of deaths, births, and marriages, and in the regulation of burials. Besides the usual certificate of death and burial permit, a rule is given which is to be observed in the burial of those who die of acute contagious diseases. It is that no public funeral, no opening of the coffin, and no transportation (unless in a sealed metallic or lead-lined coffin), by public carriers beyond the nearest appropri-

ate burial place, should be permitted in the case of those who die of diphtheria, scarlet fever, measles or typhus. The corpse should be wrapped in strong disinfectants until buried.

In reference to marriage records it is ruled that on the day of a marriage, and while the proper witnesses are present with the married couple, the record should be made out and signed by them, according to the forms required by the State. *The person who legally solemnizes or attests the marriage ceremonial, must certify his official act, in the prescribed form; after which it is his duty to make sure that the record and certificate are placed in the hands of the local registering officer within three days after the marriage.*

The system of recording prevalent diseases is an important feature of the plan. The new laws require that every local Board of Health shall report to the State Board every case of smallpox and varioloid, and the facts relating to epidemic, infectious, and prevalent diseases; and it is made the duty of each local Board to receive, and examine into, the complaints made by any inhabitant concerning causes of danger or injury to the public health. Each local Board has power to take whatever action is necessary to prevent the spread of dangerous diseases, and the laws require that the State Board of Health shall give any necessary information and advice in such duties. Blank forms are furnished to physicians on which to prepare their reports and forward them.

Special circulars of inquiry have been prepared, and distributed by the State Board on various subjects of general and immediate interest. One of these is on school buildings and the hygiene of public schools; another is on miasmatic diseases and malaria. Forms for filling in replies, etc., are provided by the Board.

These plans and rules are in the highest degree praiseworthy. They will redound to the benefit of the State and its citizens; they are a credit to its civilization; while it remains a standing discredit to the citizens of Pennsylvania and other States, that they have created

no Board of Health, and this most vital interest is totally neglected.

NOTES AND COMMENTS.

Some Observations on the Brain.

The dog's brain is no larger than that of sheep, and is smaller than the ox's. In the elephant we find that organ weighing three times as much as in man. The whale and other cetaceæ, have brains superior to that of man.

When the weight of the encephalon is compared with that of the body, we find that in man it is relatively smaller than in several species of monkeys, (the ouistiti for example), the sparrow, the tom-tit and the canary. The dog also has relatively less than the bat, the horse than the rabbit.

If the circumvolutions or varied and irregular folds noticed on the brain of certain animals are, as some authors consider them, evidences of superiority, it will be found that the ass has fully as many, and the elephant more than man.

It is generally admitted that a man whose brain weighs less than 1000 grams, is necessarily deprived of intelligence. Physiologists are not, as yet, agreed on the question as to the age when the brain attains its maximum weight, and as to whether there exists such a period as that when that organ decreases or atrophies. According to Mr. Gratiolet, "the brain grows constantly, at least among the Caucasian races, from early childhood to decrepid old age."

It is said that Cromwell's brain weighed 2238 grams; that of Lord Byron, 2288; that of Cuvier, 1829; but these figures, which are not incontestable, prove nothing. Raphael, Descartes, Voltaire, Napoleon, Schiller, and many other illustrious men had small heads, and their brains could hardly have greatly exceeded the average weight, which varies from 1328 to 1424 grams.

Latent Meningitis in Pneumonia.

M. Ch. Firket, in a recent interesting memoir ("Contribution à l'étude de la meningite latente chez les pneumoniques") remarks that these meningitic complications, and particularly the occurrence of acute meningitis in pneumonia, have long occupied the attention of pathologists (Guersant, Andral, Chomel, Briquet, Grisolle, Rokitansky).

The appearance of cerebro-spinal meningitis in Germany, in 1863, caused particular attention to be devoted to the relations existing between

inflammations of the lungs and those of the meninges. Since this epoch a number of works have appeared on the subject (Immerman and Heller, Maurer, Verneuil, Suragne Laveran, Barth and Houlin). From these numerous researches an interesting fact was discovered; it was found that when meningitis appeared during the course of inflammation of the lung, the symptoms were not at all so violent as in ordinary acute meningitis; in fact the meningitis often passes unperceived or the symptoms are so vague that they are not sufficient to establish a decided diagnosis. M. Firke observed in the post mortem amphitheatre at Liege three cases of this kind, remarkable on account of the complete absence of symptoms.

These were three cases of croupous pneumonia, but no sign attracted special attention to the cerebro-spinal centres, and yet in all the three subjects post-mortem examination revealed an already purulent exudation in the cerebral meninges. The lesions were superficial, the membranes being easily detached from the cortical layer, which was not affected.

In the cases mentioned by the author, alterations were also found in the pleurae, the pericardium and the endocardium. M. Firke, seeking to establish some relationship between these different lesions and at the same time between the meningitis and the lung disease, considers that this form of meningitis is, as well as the other lesions in the pericardium, etc., the result of a species of general infection of the system by microscopic organisms (Klebs), or otherwise.

Ergot in the Treatment of Lead Palsy.

According to Dr. J. A. Stites, of Belmont, Nevada, in the *Therapeutic Gazette*, for October, 1881, about fifty per cent. of the physician's practice there consists of cases of lead poisoning, the symptoms being in most instances well marked, while in the remainder they are more or less masked. Of the remaining fifty per cent. of practice, the bulk is furnished by accidents and syphilis. The occupation of the male population is mining in silver ore, which is largely associated with lead. Wrist drop is a very frequent symptom, and paralysis of other forms, even hemiplegia and paraplegia, is not an infrequent complication. In the milder manifestations of these symptoms, a cathartic of sulphate of magnesia followed by iodide of potassium, usually removes them in a few days, enabling the sufferer to resume his work.

Persons who abstain from alcoholic stimu-

lants, keep their bowels open, and lead a regular life, are much less apt to suffer from lead poisoning.

In hemiplegia and paraplegia due to lead poisoning, he has found ergot in combination with iodide of potassium and nux vomica to expedite recovery. He has tested its efficacy by comparison in the Nye County Hospital, adopting three varieties of treatment. 1st. Iodide of potassium alone. 2d. Electricity with tonics and nux vomica. 3d. Iodide of potassium and ergot. The latter plan has been attended with the utmost satisfactory results. The following is his standard prescription:

R. Potassii iodidi,	G.
Ext. ergot fluidi,	G.
Ext. nucis vomice fluidi,	G.
Tr. cardamomi co.,	G.
Syrupi, q. s. ad	iv. M.

SIG.—A tablespoonful night and morning.

Usually in a month the power has been restored to the paralyzed parts. Under other forms of treatment recovery does not usually come under three months. The efficacy of ergot is attributed to the well-known physiological action of ergot on the non-striated muscular fibre. The dangers which were formerly supposed to be attendant on the prolonged employment of ergot, such as gangrene, etc., are, he says, certainly not to be apprehended from his experience in the therapeutic employment of the drug.

Note upon Certain Bilateral Anomalies of the Obturator Artery.

Dr. A. H. P. Leuf, of Brooklyn, N. Y., reports in the *Annals of Anatomy and Surgery* for November, 1881, the following observations which are of interest in connection with the subject of operations for the relief of strangulated femoral hernia. It will be seen that the second anomaly mentioned in this note would not necessarily be followed by hemorrhage from incisions in the usual direction. These observations were made in the dissecting-room of the Long Island College Hospital.

In one subject, on both sides, the obturator artery arose from the inner side of the femoral artery, 1 centimeter below Poupart's ligament; thence going forward along the inner side of the vein it passed through the femoral ring, hugging the edge of Gimbennat's ligament. After leaving the ring, both vessels pursued their normal course.

In another subject both the obturator arteries arose immediately underneath the ligament of

Poupart, so that it was difficult to tell whether they came from the external iliac or femoral. Both vessels passed downward from their origin, forming a loop about 1 centimeter long. On both sides, this loop and its retaining branch were situated between the femoral artery and vein, and passed through the ring, hugging the pecten ridge behind the vein and close to the artery. Thereafter the course and relations of both vessels were normal.

The right obturator artery of another subject arose from the femoral at its beginning, and entered the pelvis at the inner side of the ring. The obturator of the left side differed from its fellow only in origin, which was from the lower end of the external iliac.

Remarkably Slow Pulse.

Dr. J. A. Rice, of Bridgeport, Conn., gives, in the *Medical Record*, the following account of personal observations on the rate of his heart beat: "Lying down, thirty-six; sitting, thirty-eight; standing, forty-one; after walking one mile, forty-three; after walking two miles, forty-six; after violent exercise, fifty-two per minute. Beat counted at the apex beat, to avoid error. The other members of my family have natural pulses. I first noticed my peculiarity eight years ago, since which time it has not changed. I have not been sick enough to know what effect a fever would have on it. I have no valvular lesion or other trouble with the organ, though it is at times a little irregular. My health is at all times excellent. I know of no cause for the slow rate. My age is under thirty."

The Local Application of Chloral Hydrate in Throat Affections.

In a paper read before the Northwestern Ohio Medical Association, and published in the *Detroit Lancet*, for July, 1881, Dr. G. A. Collamore speaks of a species of sore throat, characterized by moderate swelling of the tonsils and adjacent mucous membrane, pain in deglutition, and a peculiar cherry red or purplish-red hue of the tonsils and pharynx. On the tonsils appear spots of whitish or yellowish white color, the size of a grain of corn or less. These are composed of the aggregated secretions of the tonsillar glands, and are readily detachable, leaving the mucous surface unabraded. There is, moreover, a moderate, sometimes high, grade of fever, and decided prostration of the system. The disease is properly a follicular tonsillitis, though the inflammation is not confined to the tonsillar surfaces, but affects the palatine and

pharyngeal mucous membrane also, and is liable to be mistaken for and called diphtheria, from which a little care in observation will differentiate it.

In these cases, combined with suitable systematic remedies, chloral acts in a kindly manner as a local application, either as a gargle, a grain or two to the ounce of water, frequently used, or in a stronger solution applied with a camel's hair brush or a swab. A small quantity of the gargle may be swallowed after each gargling, in order to apply it to the lower pharynx. Employed in this way the author has found chloral a very valuable remedy.

SPECIAL REPORTS.

NO. XIX.—LARYNGOLOGY.

(Concluded from page 558).

ACUTE TONSILLITIS.

This very common throat affection is probably best treated with *guaiacum*, a drug more used in this disease in England than with us. Our own experience is very decidedly in its favor. We select a case of ordinary acute tonsillitis from a London hospital for children, reported in the *London Medical Press and Circular* lately, to show a typical treatment of a common case:—

E. H., wt. 11 $\frac{1}{2}$, came as an out-patient on May 18th, having had severe sore throat and difficulty in swallowing for four days. The child was evidently much distressed, and complained of great pain on the right side of the neck when any attempt at swallowing was made. The face was flushed, the skin all over the body very hot; pulse very full (120); tongue brown; breath very foul; severe headache; bowels constipated. She had taken nothing but liquids for three days.

Throat on Examination.—The soft pa're and pillars of the fauces are tense and markedly congested—the right side far more so than the left, where the soft palate is pushed forward by the corresponding tonsil. The right tonsil is greatly enlarged, extending beyond the mesial line. On the anterior surface are two small yellow points, almost coalescing. The whole tonsil is very tense and globular. The uvula is also much swollen, and is, as it were, "glued" to the right tonsil; glands beneath right lower jaw much enlarged.

As the breathing of the child was distressing, and the pain great, it was decided to puncture the tonsils, and this was done with a sharp-pointed bistoury, and quite a drachm of thick, yellow pus was let out. There was no immediate marked relief, but the child was placed in a special ward, in a *steam tent*, and the following mixture was ordered:—

R. Tinct. guaiaci ammoniati,	3 ss
Muciag. tragacanthæ,	3 j
Aqua, ad.	3 ss.
t. d. s.	
Port wine, 4 oz., milk, beef tea.	

This was at 4 P.M., and by midnight the child was sleeping quietly. The breathing was somewhat harsh, but not in the least distressing.

May 19th.—The throat on examination this morning shows the right tonsil much decreased in size; still discharging pus; this discharge continued until May 22d, but the inhalation of steam, the treatment by guaiacum, and the above diet were kept up until the 25th, or for one week from admission.

The other tonsil did not become affected, as is frequently the case, and the patient went out well on June 5th.

During the last week in the hospital she was ordered—

R. Potass. chlorat.,	gr. x
Tinct. ferri perchlor.,	ix
Aqua,	3j.
b. d.	

No fomentations or poultices were applied to the throat.

LARYNGOSCOPIC SIGNS OF LESIONS OF THE MOTOR NERVES OF THE LARYNX.

This was the subject of two papers at the recent International Medical Congress:—

Professor GERHARDT, of Würzburg, read one, of which the conclusions were as follows:—

Destruction of the root of the accessory nerve, or of the trunk of the pneumogastric nerve in the neck, produces complete immobility of the vocal cord in the cadaveric position. Destruction of the superior laryngeal nerve, or of its external branch, produces slight changes in form and mobility of the vocal cord, which are not quite uniformly described. They refer to the act of phonation, and especially to the form, the level, and the visible vibration of the edge of the vocal cord; and further, to prevention of the active lowering of the epiglottis. Destruction of the recurrent laryngeal produces cadaveric position of the vocal cord. If the superior laryngeal nerve be cut in animals after the inferior, the form of the glottis is still further changed. In man, the difference between paralysis of the pneumogastric nerve, and of the recurrent nerve (*i.e.*, the influence which the crico thyroid muscle is still able to exercise when all other muscles of the vocal cord are disabled) is still to be ascertained. Slowly acting pressure on the inferior laryngeal paralyzes first the adductors. Exclusive paralysis of the posterior crico arytenoid muscle causes well marked abduction of the vocal cord, still more complete adduction in inspiration, and normal vibration of the vocal cord during phonation. There is some reason to believe that the secretory functions of the laryngeal mucous membrane are also influenced by the laryngeal nerves.

Dr. G. M. LEFFERTS, of New York, also read a paper, in which he suggested the following five great classes:—

1st. The result of complete, usually acute, morbid implication of the nerve centres, or of the main nerve trunks, the lesion being either unilateral or bilateral, and the vocal cord or cords assuming the cadaveric position. 2d. The

result of incomplete, usually slowly, progressive lesion of either the nerve centres, or more commonly of the nerve trunks; in their course, certain nuclei of the former, or certain fibrils of the latter alone being implicated, certain muscles alone are paralyzed—the abductor muscles of the glottis presenting a peculiar proclivity in this respect, and practically being the only ones thus affected; the lesion may be unilateral or bilateral. 3d. Paralysis of individual muscles of the larynx, the result of implication of certain peripheral nerve twigs, by local or intra-laryngeal lesion. 4th. Paralysis of single or groups of laryngeal muscles, the result of simple myopathic change in said muscles. 5th. Motor paralysis; functional in their nature, the abductor muscles being the ones commonly affected, the abductor very rarely.

EXTRIPATION OF THE LARYNX.

Professor A. CECCHERELLI has published recently (*Lyon Médical*) a short account of the operations for complete or partial extirpation of the larynx performed up till now, with a statement of the results obtained. The operations included in the list amount to thirty in number, of which twenty five were cases of total extirpation, and five cases of partial resection. The operation has been performed eighteen times for a carcinoma. In twelve other cases, the tumor was either not of a malignant nature, or the nature of the lesion for which the operation was undertaken was not recognized. Of these thirty cases, cure is said to have been obtained twenty times; and in the twenty-first case, the result is unknown. Twenty of the individuals, however, who recovered from the operation, succumbed later with symptoms of early relapse. The final result, then, shows eleven undoubted cures, or, at least, considerable prolongation of life, and one doubtful case. Professor CECCHERELLI's conclusions are the following: 1. Extirpation of the larynx is an operation henceforth included in surgical therapeutics; 2. It is best carried out by the thermo-cautery; 3. It should be reserved for those cases in which the lesion is not too diffused for the successful attack of the surgical knife; 4. Tumors of a malignant nature are not suitable to the operation; 5. The operation is very admissible in cases of carcinoma, but only when it is limited, and when the case is not one of soft cancer, and the disease has not yet produced general inflammation.

This topic also came up for discussion, before the Sub-section on Diseases of the Throat, at the recent International Medical Congress. One paper on it was read by Dr. PHILIP SHECH, of Munich, in which the author said that total extirpation was indicated:—

1. (a) In all malignant new formations, which,

while attacking large tracts, or more than half the larynx, have spared the neighboring parts; (b) In cases of dysphagia due to excessive hypertrophy of the cricoid or arytenoid cartilages, or of their mucous coverings, in which nutrition by means of the stomach pump was impossible, and feeding *per anum* insufficient. It was contraindicated: (a) In all benign neoplasms and multiple papillomata, even if they could not be thoroughly removed by any other method, and recurred repeatedly; (b) In perichondritis and necrosis of the cartilage; (c) In all malignant neoplasms, which had either already led to carcinomatous affections of neighboring or more remote organs, or to which were added other severe diseases, even if not malignant. 2. Partial extirpation was indicated: (a) In highly developed unyielding tubular laryngeal stenosis, and in other forms of the stenosis in which the vocal apparatus had undergone so much destruction that phonation without artificial larynx was impossible; (b) In those benign neoplasms of the larynx, in which thyrotomy would be indicated, but was impracticable on account of ossification of the cartilages; (c) In those malignant neoplasms, which, while being circumscribed, had affected the cartilage, or which, though infiltrating a larger surface, were limited to one half of the larynx. It was contra-indicated: (a) In simple, dilatable laryngeal stenosis, especially in cases of membranous adhesion of single parts of the larynx; (b) In cases of papilloma, even if they recurred repeatedly; (c) In malignant neoplasms, which, though unilateral, had infected neighboring or more remote organs.

PHARYNGEAL STRICTURE.

A remarkably severe case of this is reported by Dr. LANGREUTER, *Deutsches Archiv. f. Klin. Med.* Bd. xxvii:—

The person was a young man, twenty-nine years old, for some years subject to syphilitic symptoms. The stricture gradually progressed until he was in immediate danger. Tracheotomy was then performed and a tube inserted. The patient recovered promptly, and under the usual specific treatment the general symptoms disappeared. The stenosis arose from a ring-shaped cicatrice, which contracted in healing.

TREATMENT OF LARYNGEAL STENOSIS.

It is maintained by Dr. GANGHOFNER, *Ann. des Mal. du Larynx*, May, 1881, that mechanical dilatation is especially successful in laryngeal stenosis, provided that the acute stage be passed. The greatest success has been obtained in the hypertrophic form of chronic laryngitis with vegetations in the lower part of the larynx, to which has been given the name of chorditis vocalis inferior hypertrophica. It is of the greatest importance to know what are the indications for laryngeal catheterization in acute œdema of the glottis. In some cases various writers speak favorably for its employment.

LARYNGEAL STENOSIS TREATED BY MECHANICAL MEANS.

A paper on this topic was presented to the Sub-section on Diseases of the Throat, at the International Medical Congress, by Dr. PAUL KOCH, of Luxemburg. The following were the author's conclusions:—

1. Catheterism and "tubage" of the glottis are to be rejected in cases of acute laryngeal stenosis, as soon as the latter endanger life. This rule is especially to be applied in cases of children suffering from croup, diphtheria, and cedema glottidis. Catheterism and "tubage" cannot in any respect replace tracheotomy.
2. In cases of chronic laryngeal stenosis, the first question will be: whether the morbid process has arrived at its end; if not, the appropriate general treatment should be employed, and the final development of the laryngeal affection must be waited for.
3. In cases of chronic narrowing which do not endanger life, mechanical treatment can be employed from the very beginning; but, if there be the slightest danger in delay, prophylactic tracheotomy ought to be practiced forthwith.
4. The low operation of tracheotomy should always be performed in these cases.
5. If free respiration, either *per via naturales* or through the artificial opening, be secured, the mechanical treatment might be executed, either through the mouth or through the tracheal fistula.
6. If mechanical treatment be unsuccessful, recourse must be had to prophylactic tracheotomy, and to laryngotomy, followed by excision, galvano-caustic cauterization, etc.
7. If laryngotomy and the subsequent treatment is not efficient, they should be followed by partial resection, and the intervention either of a T cannula or of an artificial larynx.

Others present expressed opinions also favorable to this plan of treatment. One of these, Dr. HERING, of Warsaw, showed, from the statistics of one hundred cases, that the failure of the method depended on the misapplication or want of perseverance in its use, not on its own defects. Dr. GROSSMAN (Vienna), and others, spoke on this treatment, all agreeing as to its value.

DERMIC AFFECTIONS OF THE MUCOUS MEMBRANE.

Dr. E. LORI (*Schmidl's Jahresbuch*, 1, 1881), has described some of the pathological changes in the mucous membrane of the throat. Pemphigus has occurred in his practice in a few cases, sometimes recurrent in form. Miliary eruptions he has frequently seen, and has found them to occur especially in persons of the better class, and in fair health. They are most frequent and conspicuous on the soft palate. In the larynx they are observable everywhere except on the vocal cords. They usually disappear after two or three days, but may continue longer.

Herpes of the pharynx and larynx is common, and is distinguished from the miliary eruption

by the larger size of the vesicles. They occasionally form superficial ulcerations, but the miliary vesicles never do.

ADENOID VEGETATIONS IN THE LARYNX.

Papers on these growths were read at the International Medical Congress, by Dr. W. MEYER, of Copenhagen, and by Dr. LÖVENBERG, of Paris. The former stated the following conclusions:—

1st. The existence of adenoid vegetations in the vault of the pharynx, up to the present, was everywhere verified when looked for. 2d. A cold and damp climate was very likely to favor their development. Other certain etiological factors were youth, family tendency, and cleft palate. The connection with serofulosis was doubtful. 3d. The symptoms following adenoid vegetations did not depend exclusively upon impeded passage of air through the naso pharyngeal cavity. 4th. The practical importance of adenoid vegetations almost always depended rather upon their situation than on their quantity. 5th. The prognosis of ear-diseases connected with the presence of adenoid vegetations was comparatively favorable. Removal of vegetations was of the highest importance for the cure of concomitant ear-affections. 6th. The presence of adenoid vegetations in certain acute exanthemata (measles, scarlatina), was of prominent prognostic importance. 7th. Neither anterior nor posterior rhinoscopy, nor digital exploration, alone, gave sufficient clue for its physical diagnosis. The last named was practically and scientifically preferable. If possible, all three should be used. Microscopic examination was necessary in dubious cases. 8th. The removal of adenoid vegetations was certain and free from danger. Difficulties of operation sometimes depended upon their hidden position and tough consistence. 9th. Among the operations for removal, those were to be deprecated where neither the finger nor the eye guided the cutting instrument. 10th. The extraordinary tendency of adenoid vegetations to recur, gave to the after-treatment a not less important place than to primary operative removal.

Dr. LÖVENBERG's paper presented the following results:—

1st. Suppression of nasal respiration and nasal voice, generally accompanied by ear troubles, forms a group of symptoms often met with in childhood and youth, and not due to a nasal or tonsillar affection, but to the existence in the nasal part of the pharynx of tumors composed in the immense majority of cases of adenoid tissue. 2d. In certain numbers of children suffering from this disease, the respiratory embarrassment causes a peculiar deformity of the thorax. 3d. The disease always affects the pharyngeal tonsil, and often simultaneously the lateral walls of the pharynx. 4th. The removal of all these tumors ought to be effected as soon as possible. At any rate, portions sufficient to re-establish the permeability of the nasal fossa and the Eustachian tubes should be removed. 5th. The tumors resulting from hyperplasia of the pharyngeal tonsils can be operated upon

after different methods. The vegetations situated on the lateral walls of the pharynx, and especially those which are in the vicinity of the ostium of the Eustachian tube, are best destroyed by means of a fine galvano-cautery guided by the rhinoscopic mirror.

Papers on the same subject were read by Dr. GUYE (Amsterdam), and Dr. WOAKES. Dr. GUYE dwelt on the prophylactic treatment. Drs. MICHEL, FRANKEL, BÖCKER, and HOFMANN, spoke on the subject, the various speakers recommending different modes of treatment, all insisting that the finger or the eye must guide the instrument used, whether the snare (Michel), the ring knife (Mayer), or the finger-nail (Guye) be employed.

REMOVAL OF LARYNGEAL POLYPI.

In an inaugural dissertation quoted in the London *Medical Record*, June 15th, 1881, Dr. STRAUSS, of Breslau, strongly advocates Voltolini's method of removing laryngeal polypi by means of a sponge, which has hitherto received little favor from the profession. He describes the proceeding as follows: A dry or wet sponge of the size of a cherry-stone or hazel-nut, well fastened to a metal handle, is introduced into the larynx while the patient intones *a*. Here it is held, the laryngeal muscles contracting around it spasmodically until the patient draws a breath, when it is quickly passed between the vocal cords. This proceeding is repeated several times in one sitting. All polypi growing in the larynx, as far as the upper part of the trachea, can be reached by this method. They are broken off or cutised, and afterwards mortify. This is especially the case with the smallest and most firmly attached ones, which have hitherto been the most difficult to remove. No ill effects have resulted from bleeding or from the detached portions falling into the trachea. Voltolini represents this operation as simple, and without danger. He has performed it fifteen times; in seven cases the polypi were removed at one sitting: in three cases in two or three sittings. In four cases, a longer time was required to remove them.

BLOOD CYSTS OF THE THYROID.

M. ONIMUS believes that these can be successfully treated by iodized injection and electrolysis. He relates a case (*Bulletin de Therapeutique*, May, 1881), in which the tumor was about two inches in diameter. M. ONIMUS made a puncture, which gave issue to about 150 grams of a chocolate colored liquid. A carbolated injection was then made by the channel; then an injection of a solution of iodide of potassium of ten degrees of strength. There was then introduced into the cystic cavity, filled with this solution, a

Nov. 19, 1881.]

Special Reports.

585

metallic stem placed in communication with the positive and negative poles of the electric pile, of from 24 to 36 elements, while the other pole was applied on the periphery. There was a little hemorrhage. In a short time the cavity refilled itself, and the tumor was as large as ever. The day after the operation there was an attack of intermittent fever, which was only one of those diathetic reminders pointed out by M. VERNEUIL. Four weeks later, he discovered that from the size of an apple the tumor had become reduced to that of a nut, and after that time it decreased in considerable proportion. M. BOINET has also related several cases in which he obtained excellent results after puncture, followed by the iodized injection. It is a mistake to believe that the iodized injection is also followed by acute inflammation, for in the cases to which he alluded there was neither inflammation nor suppuration.

THE CAUSES OF GOITRE.

Mr. G. A. LABOUR, M.A., Professor of Geology in the University of Durham College of Physical Science, Newcastle-on Tyne, has published a brief paper on the geological distribution of endemic goitre in England. He first examines the data obtained on the subject from carefully conducted studies in France, and next considers the distribution of the disease in England.

"In England, as in France, one point," he says, "and one alone, seems to be established as being common to those rocks on which goitre is found not to occur; the absence of limestone, together with that of metallic impurities, and especially sulphide of iron. In both countries the rocks which support most goitre are such as are both calcareous and metalliferous. But there are plenty of facts to show that metalliferous impurities alone cannot be credited with the origin of the disease, else the Devonian and the granite would not be free from it. Neither will the absence of limestone alone be sufficient to check the growth of bronchocele, else the lignitiferous beds of France and the ferruginous sands of the weald would not support it. On the whole, there is a striking sameness in the geological distribution of the disease in the two countries."

TREATMENT OF GOITRE.

Dr. EDWARD WOAKES, in the *Lancet*, March, 1881, gives the result of his experience of fluoric acid in the treatment of goitre. Of twenty cases, seventeen were cured. The treatment extended over a lengthened period. Fluoric acid is not to be regarded as a specific, but rather as a basis of constitutional treatment; with which iron, in anaemic subjects, may be advantageously combined, while, coincidentally with its internal administration, recourse may be had to such local procedures as experience has shown to favor disper-

sion of goitre. In many cases, the effect of the fluoric acid was immediate. In one case, a large fibrous goitre that had existed for two years was markedly diminished in a week, by the use of half drachm doses of the acid, three times a day. In other cases, improvement goes on up to a certain point, and then the tumor remains stationary. Then an injection of iodine into the substance of the tumor causes absorption to commence, and often it is only necessary to continue with the acid, or perhaps to employ a second injection. The rationale of the *modus operandi* of fluoric acid, is that it restores the lost contractile function of the impoverished ganglia that supply the *nervi vasorum*, either by acting as a physiological spur to their function, or by furnishing a deficient element in their composition, or without which the nerve currents generated in them are reduced to *nil*.

OPERATIONS FOR GOITRE.

A case of extirpation of a colloid goitre is reported by Dr. RICHELAT, in the *Annales des Mal. du Larynx*, Dec. 1880. The gland was removed through a curved incision with its convexity downwards, extending to the common carotid on each side, and passing immediately above the sternal notch in the median line. The trachea was found strongly curved to the right, and slightly flattened from before backward, but not softened or degenerated. It was intimately adherent to the gland, from which it was removed from below upwards. There was very little loss of blood during the operation. Silk ligatures, which were first employed, were mostly replaced by catgut ones, and the wound was united by wire sutures. There was severe dysphagia for several days, followed at the end of a week by an attack of bronchitis and tracheitis. The result was complete cicatrization of the wound in the fifth week, accompanied by complete and persistent aphonia.

In Geneva, where goitre is very common, its surgical extirpation is comparatively frequent. It is stated in a report of the Cantonal Hospital, in the *Lancet*, June 11th, 1881, that Professor REVERDIN has operated thirteen times for the extirpation of goitre, and Dr. AUGUSTE REVERDIN, four times. Out of these seventeen cases three have died—viz., one case of calcified, suffocating goitre; one case of ordinary suffocating goitre; and one case of cancer of thyroid, with thrombosis of jugular vein. Out of the remaining fourteen operations, twelve have healed by first intention, sometimes with little fistulae lasting for a time, and two have healed by second intention.

EXOPHTHALMIC GOITRE.

M. TILLAUX presented at the séance of the Société de Chirurgie, May 18th, 1881, a patient presenting a very enlarged thyroid gland with very marked exophthalmia, and all the symptoms (palpitations, etc.), usually observed in such cases.

He determined to remove the enlarged thyroid gland, which he has already done in several cases successfully, but as soon as chloroform was administered, very marked and menacing symptoms of asphyxia supervened. As the life of the patient seems menaced unless the gland be removed, M. TILLAUX asks the advice of his colleagues as regards operating. MM. VERNEUIL and DUPLAY are of opinion that it would be dangerous, and the removal of the gland of no benefit, because of the advanced stage of the malady.

At the next meeting M. TILLAUX informed the Society that he had operated.

The operation did not prove exceedingly difficult, although it was necessary to dissect the vessels and nerves of the carotid region. The patient is doing well, breathes and swallows with facility; the palpitations, etc., have ceased, the exophthalmia is much diminished, and the patient feels that the eyelids are too large for the eyes." The operation was performed without chloroform, but the patient took, three-quarters of an hour before the operation, three grams of chloral in forty-five grams of syrup of morphine (Fr. codex); notwithstanding this, the patient suffered somewhat during the operation.

CORRESPONDENCE.

Pregnancy with Procedentia.

ED. MED. AND SURG. REPORTER:—

In the summer of 1874, I was called twenty-five miles, to the town of Elysville, B. and O. R. R., to see Mrs. P., who was laboring under "procedentia uteri" when pregnant. I believe such cases are comparatively rare, and hence, of the deeper interest to us as a profession.

Leishman in his System of Midwifery, edition of '79, page 287, speaks of a case of this kind, which, it is said, came to full term, with a favorable delivery. Mine, however, was not so fortunate, so far as the child was concerned. I did not see the case, however, until it had passed through several months' treatment, first and last, by another physician. Nor should I have seen it at all, had not the family become impatient, and so frequently solicited my presence and opinion. This proceeding vexed the attending physician, and taking umbrage therewith, he left the case abruptly, at a moment when I had been led to believe that he had sent for me, and appointed an hour for meeting.

When I arrived there, however, I found ad-

been led astray by the Doctor's abrupt action. Seeing the poor woman thus at the mercy of chances, I appointed her mother and two highly reputable ladies to witness my examination, and began to investigate the case. It was in warm weather and she had only a sheet over her.

On entering the room, I beheld an enormously swollen abdominal and infra thoracic region; the extremities were atrophied, eyes protruding, lids contracted, bones of the face prominent, lips contracted, and teeth exposed, in all, a ghastly appearance.

On placing hand beneath the cover, to palpate the swollen surface, I found considerable tympanites, with some effusion, and when I essayed to make a vaginal examination, my hand was excluded by a tumor of some kind lying outside, with a connecting portion in the place where I had expected my hand to enter.

Having obtained permission, I removed the cover and saw at a glance, the womb lying prominent between the thighs. It offered a favorable opportunity to see that glued condition of the os common to the gravid state which authors tell us about, but which we are not fortunate enough to see very often in the living subject. I might compare it in appearance to the filmy and convex appearance of the eyeball of a bull, recently dead.

Being satisfied with externals, I next directed my attention to the internal system, and after an investigation I was convinced that no organic lesion existed.

Having been informed by the patient and her mother that the physician had at first diagnosed the case (to use their own terms), "loss of the monthly courses," and that he had used the hip bath, and many relaxing remedies, etc., and finding nothing wrong but what depended on the mistaken treatment and its consequences, if such had been the treatment, and at all events, to the uterine and attending troubles, I diagnosed the case as herein already described.

It was plain to my mind, that the treatment was to enter largely into the secretory functions, and a local application to the swollen surface and to the womb, was all I felt like undertaking there. I did not see that I could reduce that uterus, nor, did I attempt to unload it by instruments or manipulation of any sort, save the application of a cooling astringent antiseptic lotion.

Here is my treatment:

R. Ant. et potass. tartrat., gr.⁴
Hydrarg. chlor., mitis, gr.^{vj}
Potass. nitratis, gr.xxv. M.
Et in pulv. xij divid.

Sig. One powder in syrup 3 times a day, alternating with—

R. Potass. bitar., 3 vj.
In pulv. xij divid.

Sig. One powder three times a day in a little syrup, alternating with the former.

R. Potass. chloratis,
Potass. nitratis,
Pulv. alumin.,
Plumbi subacetatis, aa 3j
Aqua font., Oiss. M.
Ft. sol.

Sig. Bathe the womb thoroughly every four hours.

R. Ol. olive. $\frac{3}{ij}$
 Tinct. camph.,
 Aque ammon.,
 Tinct. opii,
 Ol. monardæ,
 Perchloride of amył, $\frac{aa}{3j}$. M.
 Ft. lin.

Sig. Bathe over the entire swollen surface three times a day.

In twenty-four hours the uterus contracted considerably, discharged its several days' defunct contents (about three months gone), and continued to reduce its dimensions. The diet I directed should be Graham mush and sweetened cream, wild fowl, tenderly prepared, farina, etc.

Finding in a few days that a very favorable impression was being made, I continued the treatment (without the calomel, however) for several days longer. The secretions began to be restored, the abnormal condition to yield, and the womb had started home, unladen of its unfortunate contents.

I used no manipulation whatever, but let the *vis medicatrix nature*, assisted by the lotion named, complete the return of the uterus to its normal position in the pelvic cavity. This was completed in about three and a half weeks, and by this time a course of the following prescriptions, which had in due time succeeded the former, had well nigh exchanged the other and functional abnormalities, for a perfect state of health.

R. Potass. iodid., $\frac{3}{ss}$
 Ext. sarsaparillæ, fluid, $\frac{3}{ij}$. M.
 Ft. sol.

Sig. Teaspoonful in a wineglass of soft water two hours after each meal.

R. Potass. bitart., $\frac{3}{ij}$.
 In pulv. xxiv divid.

Sig. One powder in a little sweetened water one hour before each meal.

This, I found, answered my expectation for about a week, and then I prescribed—

R. Tinct. cinch., comp., $\frac{3}{ij}$
 Acid sulph., aromat., $\frac{3}{iss}$. M.
 Ft. mist.

Sig. Teaspoonful in a wineglass of soft water one hour before each meal.

R. Syr. iodid. ferri, $\frac{3}{j}$.
 Sig. 10 to 15 drops in a wineglass of soft water two hours after each meal.

In about two weeks more I prescribed—

R. Precip. carb. ferri, $\frac{3}{j}$.
 In pulv. xlvi divid.

Sig. One powder in a little syrup two hours after each meal.

And therewith I finished up the case, having used at intervals during the treatment the *Potus Imperialis* of the U. S. Dispensatory, and conducted the dietary along by degrees, and now have the pleasure of assuring the skeptical that the lady and the witnesses of my examination and treatment are still living to testify to all stated herein. The lady herself is, since her recovery, "the joyful mother of many children."

P. J. GARDNER, M.D.

NEWS AND MISCELLANY.

An Apology Made.

We express our regret to our readers for having admitted in this journal (Oct. 29), a letter from Dr. M. M. Griffith, of Bradford, Penna., in which he brought forward the merits of "petroleum mass." We knew nothing at the time of Dr. Griffith, or his interest as a dealer in this harmless stuff. We have now before us a circular, in which he advertises over his own name his "crude petroleum pills" as "a positive cure in all cases of acute tuberclosis;" in which he also offers to give his "personal attention gratuitously" to patients. His envelopes are stamped with his name as "proprietor of crude petroleum pills, a cure for consumption and all diseases of the throat and lungs."

This is enough to show the professional standing of Dr. Griffith, and we hope the journals which, like ourselves, have admitted his article will govern themselves accordingly. We are ourselves always glad to be informed when we are caught napping in this manner.

Trials of Editors.

The *Southern Practitioner*, published at Nashville, Tenn., stands unrivaled, as we once before remarked, in the medical press, for the quality of its Billingsgate. Its last display of ability in this direction was an attack on Dr. Julius Wise, editor of the *Mississippi Valley Medical Monthly*. The wording and spirit of this onslaught were such as to show that the writer, whoever he was, is unfit to be recognized by gentlemen, and we are surprised that Drs. Duncan Eve and Deering J. Roberts, editors of the *Practitioner*, allow such a fellow to write for their journal. It must make those gentlemen sick at the stomach to have to assume the responsibility of fatterning the dippings from his nasty pen. We pity them.

Personal.

—Professor Busch, of Bonn, who performed a successful operation on the German Empress recently, has received the Great Cross of the House of Hohenzollern, accompanied by an autograph letter from the Emperor, signed, "your grateful king, William."

Items.

—A coroner's verdict lately read thus: "The deceased came to his death by excessive drinking, producing apoplexy in the minds of the jury."

—Like a brass band for the deaf: A Vermont man has willed his picture gallery to a blind asylum. The patients are supposed to be the only persons who can really appreciate the collection.—*Boston Commercial Bulletin*.

—M. Labouchere says, in *Truth*, that the late Baron James de Rothschild incurred losses on the Bourse in October amounting to \$80,000,000 (\$16,000,000), and that his anxiety caused the bursting of an aneurism.

OBITUARY NOTICES.

—Dr. T. Clay Maddux, of Baltimore, was shot dead on election day, in a political quarrel, at Odenton, Md. He was born in Fauquier County, Va., February 10, 1836. He graduated at the Alexander Academy, with distinction, in 1851, matriculated at Winchester Medical College in 1858, and took his degree as Doctor of Medicine two years afterwards. At the breaking out of the war he went to South Carolina, where he was appointed a surgeon in the Southern army, and performed his first service at Fort Sumter. He afterwards returned to Virginia, where he served in the Confederate volunteer army as surgeon, to the end of the war, having been present at the battles of Bull Run, Seven Pines, and the seven days' battles of the Chickahominy. When the war was ended he resumed the practice of his profession in Richmond, pursuing it until the autumn of 1867, when he removed to Baltimore.

—Dr. Edward T. Dale graduated at Long Island College Hospital, in the year 1873, and in the fall of that year began the practice of medicine at Fulton, Ark., being associated with Dr. R. B. Christian, of that place. In the early part of the following year he moved to Texarkana, where by constant application he succeeded in building up a large and lucrative practice. His deep interest in all public affairs thoroughly identified him as a leading and most useful citizen. Dr. Dale was one of the organizers of the State Medical Society of Arkansas in 1875, was one of its first vice presidents, and in 1879 was elected president, which position he filled most creditably both to himself and to the Society. He was also a member of the American Medical Association. He died suddenly, at Little Rock, Ark., on Sept. 19th.

—Dr. William B. Hahn, an old and reputable physician of Montgomery county, died Nov. 8d, aged eighty-two years and five months. Dr. Hahn was born at Somerton, N. J., June 8d, 1799. He studied medicine with Dr. George Van Buskirk, of Pottstown, and graduated at the University of Pennsylvania, April 22d, 1822. He was a member of the House branch of the Legislature of Pennsylvania, having been elected on the Democratic ticket in 1840, and served in the sessions of '41, '43 and '48.

—Dr. Ambrose Goertz, a Russian physician, practicing in New York City, was found dead, probably from poison self-administered, one day last week. He was at one time physician to the Russian legation in Japan, and came to this country as medical adviser to the Grand Duke Alexis. He lost favor with the Russian government on suspicion of a tendency to Nihilistic political theories. At his death he was about forty years of age.

—Dr. J. J. Youlin, a prominent physician of Jersey City, died in that city, on October 30th, of heart disease. His age was 60 years. He had been troubled with an affection of the heart for some time, and his death was not unexpected. Dr. Youlin was esteemed as a man of high character, and he enjoyed an extended practice.

—A dispatch from Paris announces the death, on October 30th, of Dr. Jean Baptiste Bouilland. Few physicians have occupied a more prominent position for the last half century than this Nestor of the French profession. We shall recur to the details of his career in another notice.

—Dr. Abraham Crispell, a well-known physician, in practice at Rondout, N. Y., for forty years, died November 5th, at the age of 59 years.

—Dr. J. W. Jamison, of Meneamin, Iowa, died from accidental poisoning, on October 27.

QUERIES AND REPLIES.

Dr. J. L., of Iowa.—The article on hemorrhagic dia-thesis in the REPORTER, vol. xii, p. 251, was incomplete, through the omission of a sentence. You will find the omission rectified in the same volume, p. 308, under Queries and Replies. The salt referred to is chloride of potash.

Dr. J. W. H., of Ills.—We can supply binders for the REPORTER, of two kinds, both stamped with its name:

1st. Ordinary cloth cases, to be applied to completed volumes, by a bookbinder, twenty-five cents each.

2d. Russell's "Common Sense Binder," for filing each number as it appears, seventy-five cents each. We recommend the latter as very satisfactory. Remit with order, and they will be mailed you postage paid.

Dr. S. T., of N. Y.—We rarely or never care to publish poetical effusions in this Journal. On that general ground, therefore, we must decline yours.

Dr. G. H. B., of Me.—We cannot return MSS. which have been used. We return others if sufficient stamps are sent for prepayment.

MARRIAGES.

HAIGHT—ANNES.—On Wednesday, October 12th, 1881, at the residence of the bride's parents, by the Rev. George Dickinson, Alfred M. Haight, M.D., and Belle C., daughter of Charles Annes, Esq., all of Woodbridge, N. J.

JENKINS—HOWARD.—In Thetford Centre, Vt., September 29th, by the Rev. T. P. Frost, Hugh Jenkins, M.D., of Preston, Ala., and Mary Lena Howard, of Thetford Centre, Vt.

JEWETT—STUART.—On October 6th, 1881, at the First Reformed Presbyterian church, Philadelphia, by the Rev. Dr. John Hall, William Kennon Jewett, and Patty K., youngest daughter of George H. Stuart, Esq.

KIRKPATRICK—APPLETON.—On October 21, 1881, in Haddonfield, N. J. Baptist church, by the Rev. R. F. Young, assisted by the Rev. Mr. Baldwin Mr. M. Baldwin Kirkpatrick, M.P., of Philadelphia "Medical Mission," and Miss Hanneth, eldest daughter of Samuel Appleton, Esq., of Haddonfield, N. J.

DEATHS.

BLAKE.—Dr. John D. Blake, an old and prominent citizen of Washington, died October 26th, 1881, of heart disease.

SCUDDER.—In Trenton, N.J., on Monday morning, October 17th, 1881, Dr. John W. Scudder, in the sixty-eighth year of his age.

WRIGHT.—At Seabright, N. J., on Wednesday, October 12th, 1881, after a brief illness, Harriet Elizabeth, wife of Charles Wright, M.D., of this city.